

<213> Homo sapiens

<400> 1649

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Met Ala Arg Val Leu Lys Ala Ala Ala Asn Ala Val Gly Leu Phe
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Ser Arg Leu Gln Ala Pro Ile Pro Thr Val Arg Ala Ser Ser Thr Ser
          20           25           30
Gln Pro Leu Asp Gln Val Thr Gly Ser Val Trp Asn Leu Gly Arg Leu
          35           40           45
Asn His Val Ala Ile Ala Val Pro Asp Leu Glu Lys Ala Ala Ala Phe
          50           55           60
Tyr Lys Asn Ile Leu Gly Ala Gln Val Ser Glu Ala Val Pro Leu Pro
          65           70           75           80
Glu His Gly Val Ser Val Val Phe Val Asn Leu Gly Asn Thr Lys Met
          85           90           95
Glu Leu Leu His Pro Leu Gly Arg Asp Ser Pro Ile Ala Gly Phe Leu
          100          105          110
Gln Lys Asn Lys Ala Gly Gly Met His His Ile Cys Ile Glu Val Asp
          115          120          125
Asn Ile Asn Ala Ala Val Met Asp Leu Lys Lys Lys Lys Ile Arg Ser
          130          135          140
Leu Ser Glu Glu Val Lys Ile Gly Ala His Gly Lys Pro Val Ile Phe
          145          150          155          160
Leu His Pro Lys Asp Cys Gly Gly Val Leu Val Glu Leu Glu Gln Ala
          165          170          175 176

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<210> 1650

<211> 2189

<212> PRT

<213> Homo sapiens

<400> 1650

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Met Ala Asp Val Thr Ala Arg Ser Leu Gln Tyr Glu Tyr Lys Ala Asn
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Ser Asn Leu Val Leu Gln Ala Asp Arg Ser Leu Ile Asp Arg Thr Arg
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Arg Asp Glu Pro Thr Gly Glu Val Leu Ser Leu Val Gly Lys Leu Glu
          35           40           45
Gly Thr Arg Met Gly Asp Lys Ala Gln Arg Thr Lys Pro Gln Met Gln
          50           55           60
Glu Glu Arg Arg Ala Lys Arg Arg Lys Arg Asp Glu Asp Arg His Asp
          65           70           75           80
Ile Asn Lys Met Lys Gly Tyr Thr Leu Leu Ser Glu Gly Ile Asp Glu
          85           90           95
Met Val Gly Ile Ile Tyr Lys Pro Lys Thr Lys Glu Thr Arg Glu Thr
          100          105          110
Tyr Glu Val Leu Leu Ser Phe Ile Gln Ala Ala Leu Gly Asp Gln Pro
          115          120          125
Arg Asp Ile Leu Cys Gly Ala Ala Asp Glu Val Leu Ala Val Leu Lys
          130          135          140
Asn Glu Lys Leu Arg Asp Lys Glu Arg Arg Lys Glu Ile Asp Leu Leu
          145          150          155          160
Leu Gly Gln Thr Asp Asp Thr Arg Tyr His Val Leu Val Asn Leu Gly
          165          170          175
Lys Lys Ile Thr Asp Tyr Gly Gly Asp Lys Glu Ile Gln Asn Met Asp
          180          185          190
Asp Asn Ile Asp Glu Thr Tyr Gly Val Asn Val Gln Phe Glu Ser Asp
          195          200          205

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Glu Glu Glu Gly Asp Glu Asp Val Tyr Gly Glu Val Arg Glu Glu Ala
 210 215 220
 Ser Asp Asp Asp Met Glu Gly Asp Glu Ala Val Val Arg Cys Thr Leu
 225 230 235 240
 Ser Ala Asn Met Tyr Val Asp Glu Ile Leu Val Trp Cys Ala Ser Glu
 245 250 255
 Leu Asn Ile Pro Glu Phe Phe Pro Leu Glu Ser Pro His Lys Lys Val
 260 265 270
 Gly Tyr Gly Leu Ser Ser Arg Thr Trp Leu Gln Gly Gly Gly Lys Val
 275 280 285
 Ile Glu Ala Gly Arg Asp Leu Leu Val Ala Ser Gly Glu Leu Met Ser
 290 295 300
 Ser Lys Lys Lys Asp Leu His Pro Arg Asp Ile Asp Ala Phe Trp Leu
 305 310 315 320
 Gln Arg Gln Leu Ser Arg Phe Tyr Asp Asp Ala Ile Val Ser Gln Lys
 325 330 335
 Lys Ala Asp Glu Val Leu Glu Ile Leu Lys Thr Ala Ser Asp Asp Arg
 340 345 350
 Glu Cys Glu Asn Gln Leu Val Leu Leu Leu Gly Phe Asn Thr Phe Asp
 355 360 365
 Phe Ile Lys Val Leu Arg Gln His Arg Met Met Ile Leu Tyr Cys Thr
 370 375 380
 Leu Leu Ala Ser Ala Gln Ser Glu Ala Glu Lys Glu Arg Ile Met Gly
 385 390 395 400
 Lys Met Glu Ala Asp Pro Glu Leu Ser Lys Phe Leu Tyr Gln Leu His
 405 410 415
 Glu Thr Glu Lys Glu Asp Leu Ile Arg Glu Glu Arg Ser Arg Arg Glu
 420 425 430
 Arg Val Arg Gln Ser Arg Met Asp Thr Asp Leu Glu Thr Met Asp Leu
 435 440 445
 Asp Gln Gly Gly Glu Ala Leu Ala Pro Arg Gln Val Leu Asp Leu Glu
 450 455 460
 Asp Leu Val Phe Thr Gln Gly Ser His Phe Met Ala Asn Lys Arg Cys
 465 470 475 480
 Gln Leu Pro Asp Gly Ser Phe Arg Arg Gln Arg Lys Gly Tyr Glu Glu
 485 490 495
 Val His Val Pro Ala Leu Lys Pro Lys Pro Phe Gly Ser Glu Glu Gln
 500 505 510
 Leu Leu Pro Val Glu Lys Leu Pro Lys Tyr Ala Gln Ala Gly Phe Glu
 515 520 525
 Gly Phe Lys Thr Leu Asn Arg Ile Gln Ser Lys Leu Tyr Arg Ala Ala
 530 535 540
 Leu Glu Thr Asp Glu Asn Leu Leu Leu Cys Ala Pro Thr Gly Ala Gly
 545 550 555 560
 Lys Thr Asn Val Ala Leu Met Cys Met Leu Arg Glu Ile Gly Lys His
 565 570 575
 Ile Asn Met Asp Gly Thr Ile Asn Val Asp Asp Phe Lys Ile Ile Tyr
 580 585 590
 Ile Ala Pro Met Arg Ser Leu Val Gln Glu Met Val Gly Ser Phe Gly
 595 600 605
 Lys Arg Leu Ala Thr Tyr Gly Ile Thr Val Ala Glu Leu Thr Gly Asp
 610 615 620
 His Gln Leu Cys Lys Glu Glu Ile Ser Ala Thr Gln Ile Ile Val Cys
 625 630 635 640
 Thr Pro Glu Lys Trp Asp Ile Ile Thr Arg Lys Gly Gly Glu Arg Thr
 645 650 655
 Tyr Thr Gln Leu Val Arg Leu Ile Ile Leu Asp Glu Ile His Leu Leu
 660 665 670
 His Asp Asp Arg Gly Pro Val Leu Glu Ala Leu Val Ala Arg Ala Ile
 675 680 685
 Arg Asn Ile Glu Met Thr Gln Glu Asp Val Arg Leu Ile Gly Leu Ser
 690 695 700
 Ala Thr Leu Pro Asn Tyr Glu Asp Val Ala Thr Phe Leu Arg Val Asp
 705 710 715 720

Pro Ala Lys Gly Leu Phe Tyr Phe Asp Asn Ser Phe Arg Pro Val Pro
 725 730 735
 Leu Glu Gln Thr Tyr Val Gly Ile Thr Glu Lys Lys Ala Ile Lys Arg
 740 745 750
 Phe Gln Ile Met Asn Glu Ile Val Tyr Glu Lys Ile Met Glu His Ala
 755 760 765
 Gly Lys Asn Gln Val Leu Val Phe Val His Ser Arg Lys Glu Thr Gly
 770 775 780
 Lys Thr Ala Arg Ala Ile Arg Asp Met Cys Leu Glu Lys Asp Thr Leu
 785 790 795 800
 Gly Leu Phe Leu Arg Glu Gly Ser Ala Ser Thr Glu Val Leu Arg Thr
 805 810 815
 Glu Ala Glu Gln Cys Lys Asn Leu Glu Leu Lys Asp Leu Leu Pro Tyr
 820 825 830
 Gly Phe Ala Ile His His Ala Gly Met Thr Arg Val Asp Arg Thr Leu
 835 840 845
 Val Glu Asp Leu Phe Gly Asp Lys His Ile Gln Val Leu Val Ser Thr
 850 855 860
 Ala Thr Leu Ala Trp Gly Val Asn Leu Pro Ala His Thr Val Ile Ile
 865 870 875 880
 Lys Gly Thr Gln Val Tyr Ser Pro Glu Lys Gly Arg Trp Thr Glu Leu
 885 890 895
 Gly Ala Leu Asp Ile Leu Gln Met Leu Gly Arg Ala Gly Arg Pro Gln
 900 905 910
 Tyr Asp Thr Lys Gly Glu Gly Ile Leu Ile Thr Ser His Gly Glu Leu
 915 920 925
 Gln Tyr Tyr Leu Ser Leu Leu Asn Gln Gln Leu Pro Ile Glu Ser Gln
 930 935 940
 Met Val Ser Lys Leu Pro Asp Met Leu Asn Ala Glu Ile Val Leu Gly
 945 950 955 960
 Asn Val Gln Asn Ala Lys Asp Ala Val Asn Trp Leu Gly Tyr Ala Tyr
 965 970 975
 Leu Tyr Ile Arg Met Leu Arg Ser Pro Thr Leu Tyr Gly Ile Ser His
 980 985 990
 Asp Asp Leu Lys Gly Asp Pro Leu Leu Asp Gln Arg Arg Leu Asp Leu
 995 1000 1005
 Val His Thr Ala Ala Leu Met Leu Asp Lys Asn Asn Leu Val Lys Tyr
 1010 1015 1020
 Asp Lys Lys Thr Gly Asn Phe Gln Val Thr Glu Leu Gly Arg Ile Ala
 1025 1030 1035 1040
 Ser His Tyr Tyr Ile Thr Asn Asp Thr Val Gln Thr Tyr Asn Gln Leu
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 Leu Lys Pro Thr Leu Ser Glu Ile Glu Leu Phe Arg Val Phe Ser Leu
 1060 1065 1070
 Ser Ser Glu Phe Lys Asn Ile Thr Val Arg Glu Glu Glu Lys Leu Glu
 1075 1080 1085
 Leu Gln Lys Leu Leu Glu Arg Val Pro Ile Pro Val Lys Glu Ser Ile
 1090 1095 1100
 Glu Glu Pro Ser Ala Lys Ile Asn Val Leu Leu Gln Ala Phe Ile Ser
 1105 1110 1115 1120
 Gln Leu Lys Leu Glu Gly Phe Ala Leu Met Ala Asp Met Val Tyr Val
 1125 1130 1135
 Thr Gln Ser Ala Gly Arg Leu Met Arg Ala Ile Phe Glu Ile Val Leu
 1140 1145 1150
 Asn Arg Gly Trp Ala Gln Leu Thr Asp Lys Thr Leu Asn Leu Cys Lys
 1155 1160 1165
 Met Ile Asp Lys Arg Met Trp Gln Ser Met Cys Pro Leu Arg Gln Phe
 1170 1175 1180
 Arg Lys Leu Pro Glu Glu Val Val Lys Lys Ile Glu Lys Lys Asn Phe
 1185 1190 1195 1200
 Pro Phe Glu Arg Leu Tyr Asp Leu Asn His Asn Glu Ile Gly Glu Leu
 1205 1210 1215
 Ile Arg Met Pro Lys Met Gly Lys Thr Ile His Lys Tyr Val His Leu
 1220 1225 1230

Phe Pro Lys Leu Glu Leu Ser Val His Leu Gln Pro Ile Thr Arg Ser
 1235 1240 1245
 Thr Leu Lys Val Glu Leu Thr Ile Thr Pro Asp Phe Gln Trp Asp Glu
 1250 1255 1260
 Lys Val His Gly Ser Ser Glu Ala Phe Trp Ile Leu Val Glu Asp Val
 1265 1270 1275 1280
 Asp Ser Glu Val Ile Leu His His Glu Tyr Phe Leu Leu Lys Ala Lys
 1285 1290 1295
 Tyr Ala Gln Asp Glu His Leu Ile Thr Phe Phe Val Pro Val Phe Glu
 1300 1305 1310
 Pro Leu Pro Pro Gln Tyr Phe Ile Arg Val Val Ser Asp Arg Trp Leu
 1315 1320 1325
 Ser Cys Glu Thr Gln Leu Pro Val Ser Phe Arg His Leu Ile Leu Pro
 1330 1335 1340
 Glu Lys Tyr Pro Pro Pro Thr Glu Leu Leu Asp Leu Gln Pro Leu Pro
 1345 1350 1355 1360
 Val Ser Ala Leu Arg Asn Ser Ala Phe Glu Ser Leu Tyr Gln Asp Lys
 1365 1370 1375
 Phe Pro Phe Phe Asn Pro Ile Gln Thr Gln Val Phe Asn Thr Val Tyr
 1380 1385 1390
 Asn Ser Asp Asp Asn Val Phe Val Gly Ala Pro Thr Gly Ser Gly Lys
 1395 1400 1405
 Thr Ile Cys Ala Glu Phe Ala Ile Leu Arg Met Leu Leu Gln Asn Ser
 1410 1415 1420
 Glu Gly Arg Cys Val Tyr Ile Thr Pro Met Arg Leu Trp Gln Glu Gln
 1425 1430 1435 1440
 Val Tyr Met Asp Trp Tyr Glu Lys Phe Gln Asp Arg Leu Asn Lys Lys
 1445 1450 1455
 Val Val Leu Leu Thr Gly Glu Thr Ser Thr Asp Leu Lys Leu Leu Gly
 1460 1465 1470
 Lys Gly Asn Ile Ile Ile Ser Thr Pro Glu Lys Trp Asp Ile Leu Ser
 1475 1480 1485
 Arg Arg Trp Lys Gln Arg Lys Asn Val Gln Asn Ile Asn Leu Phe Val
 1490 1495 1500
 Val Asp Glu Val His Leu Ile Gly Gly Glu Asn Gly Pro Val Leu Glu
 1505 1510 1515 1520
 Val Ile Cys Ser Arg Met Arg Tyr Ile Ser Ser Gln Ile Glu Arg Pro
 1525 1530 1535
 Ile Arg Ile Val Ala Leu Ser Ser Ser Leu Ser Asn Ala Lys Asp Val
 1540 1545 1550
 Ala His Trp Leu Gly Cys Ser Ala Thr Ser Thr Phe Asn Phe His Pro
 1555 1560 1565
 Asn Val Arg Pro Val Pro Glu Leu His Ile Gln Gly Phe Asn Ile
 1570 1575 1580
 Ser His Thr Gln Thr Arg Leu Leu Ser Met Ala Lys Pro Val Phe His
 1585 1590 1595 1600
 Ala Ile Thr Lys His Ser Pro Lys Lys Pro Val Ile Val Phe Val Pro
 1605 1610 1615
 Ser Arg Lys Gln Thr Arg Leu Thr Ala Ile Asp Ile Leu Thr Thr Cys
 1620 1625 1630
 Ala Ala Asp Ile Gln Arg Gln Arg Phe Leu His Cys Thr Glu Lys Asp
 1635 1640 1645
 Leu Ile Pro Tyr Leu Glu Lys Leu Ser Asp Ser Thr Leu Lys Glu Thr
 1650 1655 1660
 Leu Leu Asn Gly Val Gly Tyr Leu His Glu Gly Leu Ser Pro Met Glu
 1665 1670 1675 1680
 Arg Arg Leu Val Glu Gln Leu Phe Ser Ser Gly Ala Ile Gln Val Val
 1685 1690 1695
 Val Ala Ser Arg Ser Leu Cys Trp Gly Met Asn Val Ala Ala His Leu
 1700 1705 1710
 Val Ile Ile Met Asp Thr Leu Tyr Tyr Asn Gly Lys Ile His Ala Tyr
 1715 1720 1725
 Val Asp Tyr Pro Ile Tyr Asp Val Leu Gln Met Val Gly His Ala Asn
 1730 1735 1740

Arg Pro Leu Gln Asp Asp Glu Gly Arg Cys Val Ile Met Cys Gln Gly
 1745 1750 1755 1760
 Ser Lys Lys Asp Phe Phe Lys Lys Phe Leu Tyr Glu Pro Leu Pro Val
 1765 1770 1775
 Glu Ser His Leu Asp His Cys Met His Asp His Phe Asn Ala Glu Ile
 1780 1785 1790
 Val Thr Lys Thr Ile Glu Asn Lys Gln Asp Ala Val Asp Tyr Leu Thr
 1795 1800 1805
 Trp Thr Phe Leu Tyr Arg Arg Met Thr Gln Asn Pro Asn Tyr Tyr Asn
 1810 1815 1820
 Leu Gln Gly Ile Ser His Arg His Leu Ser Asp His Leu Ser Glu Leu
 1825 1830 1835 1840
 Val Glu Gln Thr Leu Ser Asp Leu Glu Gln Ser Lys Cys Ile Ser Ile
 1845 1850 1855
 Glu Asp Glu Met Asp Val Ala Pro Leu Asn Leu Gly Met Ile Ala Ala
 1860 1865 1870
 Tyr Tyr Tyr Ile Asn Tyr Thr Thr Ile Glu Leu Phe Ser Met Ser Leu
 1875 1880 1885
 Asn Ala Lys Thr Lys Val Arg Gly Leu Ile Glu Ile Ile Ser Asn Ala
 1890 1895 1900
 Ala Glu Tyr Glu Asn Ile Pro Ile Arg His His Glu Asp Asn Leu Leu
 1905 1910 1915 1920
 Arg Gln Leu Ala Gln Lys Val Pro His Lys Leu Asn Asn Pro Lys Phe
 1925 1930 1935
 Asn Asp Pro His Val Lys Thr Asn Leu Leu Leu Gln Ala His Leu Ser
 1940 1945 1950
 Arg Met Gln Leu Ser Ala Glu Leu Gln Ser Asp Thr Glu Glu Ile Leu
 1955 1960 1965
 Ser Lys Ala Ile Arg Leu Ile Gln Ala Cys Val Asp Val Leu Ser Ser
 1970 1975 1980
 Asn Gly Trp Leu Ser Pro Ala Leu Ala Ala Met Glu Leu Ala Gln Met
 1985 1990 1995 2000
 Val Thr Gln Ala Met Trp Ser Glu Asp Ser Tyr Leu Arg Arg Leu Pro
 2005 2010 2015
 Pro Phe Pro Ser Gly Leu Phe Lys Arg Cys Thr Asp Lys Gly Val Glu
 2020 2025 2030
 Ser Val Phe Asp Ile Met Glu Met Glu Asp Glu Glu Arg Asn Ala Leu
 2035 2040 2045
 Leu Gln Leu Thr Asp Ser Gln Ile Ala Asp Val Ala Arg Phe Cys Asn
 2050 2055 2060
 Arg Tyr Pro Asn Ile Glu Leu Ser Tyr Glu Val Val Asp Lys Asp Ser
 2065 2070 2075 2080
 Ile Arg Ser Gly Gly Pro Val Val Val Leu Val Gln Leu Glu Arg Glu
 2085 2090 2095
 Glu Glu Val Thr Gly Pro Val Ile Ala Pro Leu Phe Pro Gln Lys Arg
 2100 2105 2110
 Glu Glu Gly Trp Trp Val Val Ile Gly Asp Ala Lys Ser Asn Ser Leu
 2115 2120 2125
 Ile Ser Ile Lys Arg Leu Thr Leu Gln Gln Lys Ala Lys Val Lys Leu
 2130 2135 2140
 Asp Phe Val Ala Pro Ala Thr Gly Gly Arg His Asn Thr Leu Tyr Phe
 2145 2150 2155 2160
 Met Ser Asp Ala Tyr Met Gly Cys Asp Gln Glu Tyr Lys Phe Ser Val
 2165 2170 2175
 Asp Val Lys Glu Ala Glu Thr Asp Ser Asp Ser Asp *
 2180 2185 2188

<210> 1651

<211> 2175

<212> PRT

<213> Homo sapiens

<400> 1651

Met	Ala	Asp	Val	Thr	Ala	Arg	Ser	Leu	Gln	Tyr	Glu	Tyr	Lys	Ala	Asn
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	20						25						30		
Arg	Asp	Glu	Pro	Thr	Gly	Glu	Val	Leu	Ser	Leu	Val	Gly	Lys	Leu	Glu
	35					40						45			
Gly	Thr	Arg	Met	Gly	Asp	Lys	Ala	Gln	Arg	Thr	Lys	Pro	Gln	Met	Gln
	50					55					60				
Glu	Glu	Arg	Arg	Ala	Lys	Arg	Arg	Lys	Arg	Asp	Glu	Asp	Arg	His	Asp
65					70				75					80	
Ile	Asn	Lys	Met	Lys	Gly	Tyr	Thr	Leu	Leu	Ser	Glu	Gly	Ile	Asp	Glu
				85				90						95	
Met	Val	Gly	Ile	Ile	Tyr	Lys	Pro	Lys	Thr	Lys	Glu	Thr	Arg	Glu	Thr
	100						105						110		
Tyr	Glu	Val	Leu	Leu	Ser	Phe	Ile	Gln	Ala	Ala	Leu	Gly	Asp	Gln	Pro
	115					120						125			
Arg	Asp	Ile	Leu	Cys	Gly	Ala	Ala	Asp	Glu	Val	Leu	Ala	Val	Leu	Lys
130					135						140				
Asn	Glu	Lys	Leu	Arg	Asp	Lys	Glu	Arg	Arg	Lys	Glu	Ile	Asp	Leu	Leu
145					150					155				160	
Leu	Gly	Gln	Thr	Asp	Asp	Thr	Arg	Tyr	His	Val	Leu	Val	Asn	Leu	Gly
				165				170						175	
Lys	Lys	Ile	Thr	Asp	Tyr	Gly	Gly	Asp	Lys	Glu	Ile	Gln	Asn	Met	Asp
		180					185						190		
Asp	Asn	Ile	Asp	Glu	Thr	Tyr	Gly	Val	Asn	Val	Gln	Phe	Glu	Ser	Asp
	195					200						205			
Glu	Glu	Glu	Gly	Asp	Glu	Asp	Val	Tyr	Gly	Glu	Val	Arg	Glu	Glu	Ala
210					215						220				
Ser	Asp	Asp	Asp	Met	Glu	Gly	Asp	Glu	Ala	Val	Val	Arg	Cys	Thr	Leu
225				230						235				240	
Ser	Ala	Asn	Met	Tyr	Val	Asp	Glu	Ile	Leu	Val	Trp	Cys	Ala	Ser	Glu
				245					250					255	
Leu	Asn	Ile	Pro	Glu	Phe	Phe	Pro	Leu	Glu	Ser	Pro	His	Lys	Lys	Val
		260					265						270		
Gly	Tyr	Gly	Leu	Ser	Ser	Arg	Thr	Trp	Leu	Gln	Gly	Gly	Gly	Lys	Val
	275					280						285			
Ile	Glu	Ala	Gly	Arg	Asp	Leu	Leu	Val	Ala	Ser	Gly	Glu	Leu	Met	Ser
290					295						300				
Ser	Lys	Lys	Lys	Asp	Leu	His	Pro	Arg	Asp	Ile	Asp	Ala	Phe	Trp	Leu
305				310						315				320	
Gln	Arg	Gln	Leu	Ser	Arg	Phe	Tyr	Asp	Asp	Ala	Ile	Val	Ser	Gln	Lys
				325					330					335	
Lys	Ala	Asp	Glu	Val	Leu	Glu	Ile	Leu	Lys	Thr	Ala	Ser	Asp	Asp	Arg
		340					345						350		
Glu	Cys	Glu	Asn	Gln	Leu	Val	Leu	Leu	Leu	Gly	Phe	Asn	Thr	Phe	Asp
	355						360					365			
Phe	Ile	Lys	Val	Leu	Arg	Gln	His	Arg	Met	Met	Ile	Leu	Tyr	Cys	Thr
370					375						380				
Leu	Leu	Ala	Ser	Ala	Gln	Ser	Glu	Ala	Glu	Lys	Glu	Arg	Ile	Met	Gly
385				390						395				400	
Lys	Met	Glu	Ala	Asp	Pro	Glu	Leu	Ser	Lys	Phe	Leu	Tyr	Gln	Leu	His
				405					410					415	
Glu	Thr	Glu	Lys	Glu	Asp	Leu	Ile	Arg	Glu	Glu	Arg	Ser	Arg	Arg	Glu
		420						425					430		
Arg	Val	Arg	Gln	Ser	Arg	Met	Asp	Thr	Asp	Leu	Glu	Thr	Met	Asp	Leu
	435					440						445			
Asp	Gln	Gly	Gly	Glu	Ala	Leu	Ala	Pro	Arg	Gln	Val	Leu	Asp	Leu	Glu
450					455						460				
Asp	Leu	Val	Phe	Thr	Gln	Gly	Ser	His	Phe	Met	Ala	Asn	Lys	Arg	Cys
465				470					475					480	
Gln	Leu	Pro	Asp	Gly	Ser	Phe	Arg	Arg	Gln	Arg	Lys	Gly	Tyr	Glu	Glu
				485					490					495	

Val	His	Val	Pro	Ala	Leu	Lys	Pro	Lys	Pro	Phe	Gly	Ser	Glu	Glu	Gln
			500					505					510		
Leu	Leu	Pro	Val	Glu	Lys	Leu	Pro	Lys	Tyr	Ala	Gln	Ala	Gly	Phe	Glu
		515					520					525			
Gly	Phe	Lys	Thr	Leu	Asn	Arg	Ile	Gln	Ser	Lys	Leu	Tyr	Arg	Ala	Ala
		530				535					540				
Leu	Glu	Thr	Asp	Glu	Asn	Leu	Leu	Leu	Cys	Ala	Pro	Thr	Gly	Ala	Gly
545					550					555					560
Lys	Thr	Asn	Val	Ala	Leu	Met	Cys	Met	Leu	Arg	Glu	Ile	Gly	Lys	His
			565						570					575	
Ile	Asn	Met	Asp	Gly	Thr	Ile	Asn	Val	Asp	Asp	Phe	Lys	Ile	Ile	Tyr
			580					585					590		
Ile	Ala	Pro	Met	Arg	Ser	Leu	Val	Gln	Glu	Met	Val	Gly	Ser	Phe	Gly
		595					600					605			
Lys	Arg	Leu	Ala	Thr	Tyr	Gly	Ile	Thr	Val	Ala	Glu	Leu	Thr	Gly	Asp
		610				615					620				
His	Gln	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Ala	Thr	Gln	Ile	Ile	Val	Cys
625					630					635					640
Thr	Pro	Glu	Lys	Trp	Asp	Ile	Ile	Thr	Arg	Lys	Val	Asp	Glu	Ile	His
			645						650					655	
Leu	Leu	His	Asp	Asp	Arg	Gly	Pro	Val	Leu	Glu	Ala	Leu	Val	Ala	Arg
			660					665					670		
Ala	Ile	Arg	Asn	Ile	Glu	Met	Thr	Gln	Glu	Asp	Val	Arg	Leu	Ile	Gly
		675					680					685			
Leu	Ser	Ala	Thr	Leu	Pro	Asn	Tyr	Glu	Asp	Val	Ala	Thr	Phe	Leu	Arg
		690				695				700					
Val	Asp	Pro	Ala	Lys	Gly	Leu	Phe	Tyr	Phe	Asp	Asn	Ser	Phe	Arg	Pro
705					710					715					720
Val	Pro	Leu	Glu	Gln	Thr	Tyr	Val	Gly	Ile	Thr	Glu	Lys	Lys	Ala	Ile
			725						730					735	
Lys	Arg	Phe	Gln	Ile	Met	Asn	Glu	Ile	Val	Tyr	Glu	Lys	Ile	Met	Glu
		740					745						750		
His	Ala	Gly	Lys	Asn	Gln	Val	Leu	Val	Phe	Val	His	Ser	Arg	Lys	Glu
		755					760					765			
Thr	Gly	Lys	Thr	Ala	Arg	Ala	Ile	Arg	Asp	Met	Cys	Leu	Glu	Lys	Asp
		770				775					780				
Thr	Leu	Gly	Leu	Phe	Leu	Arg	Glu	Gly	Ser	Ala	Ser	Thr	Glu	Val	Leu
785					790					795					800
Arg	Thr	Glu	Ala	Glu	Gln	Cys	Lys	Asn	Leu	Glu	Leu	Lys	Asp	Leu	Leu
			805						810					815	
Pro	Tyr	Gly	Phe	Ala	Ile	His	His	Ala	Gly	Met	Thr	Arg	Val	Asp	Arg
		820						825					830		
Thr	Leu	Val	Glu	Asp	Leu	Phe	Ala	Asp	Lys	His	Ile	Gln	Val	Leu	Val
		835					840					845			
Ser	Thr	Ala	Thr	Leu	Ala	Trp	Gly	Val	Asn	Leu	Pro	Ala	His	Thr	Val
		850				855					860				
Ile	Ile	Lys	Gly	Thr	Gln	Val	Tyr	Ser	Pro	Glu	Lys	Gly	Arg	Trp	Thr
865					870					875					880
Glu	Leu	Gly	Ala	Leu	Asp	Ile	Leu	Gln	Met	Leu	Gly	Arg	Ala	Gly	Arg
			885						890					895	
Pro	Gln	Tyr	Asp	Thr	Lys	Gly	Glu	Gly	Ile	Leu	Ile	Thr	Ser	His	Gly
		900					905						910		
Glu	Leu	Gln	Tyr	Tyr	Leu	Ser	Leu	Leu	Asn	Gln	Gln	Leu	Pro	Ile	Glu
		915					920					925			
Ser	Gln	Met	Val	Ser	Lys	Leu	Pro	Asp	Met	Leu	Asn	Ala	Glu	Ile	Val
		930				935						940			
Leu	Gly	Asn	Val	Gln	Asn	Ala	Lys	Asp	Ala	Val	Asn	Trp	Leu	Gly	Tyr
945					950					955					960
Ala	Tyr	Leu	Tyr	Ile	Arg	Met	Leu	Arg	Ser	Pro	Thr	Leu	Tyr	Gly	Ile
			965						970					975	
Ser	His	Asp	Asp	Leu	Lys	Gly	Asp	Pro	Leu	Leu	Asp	Gln	Arg	Arg	Leu
		980						985					990		
Asp	Leu	Val	His	Thr	Ala	Ala	Leu	Met	Leu	Asp	Lys	Asn	Asn	Leu	Val
		995					1000						1005		

Lys Tyr Asp Lys Lys Thr Gly Asn Phe Gln Val Thr Glu Leu Gly Arg
 1010 1015 1020
 Ile Ala Ser His Tyr Tyr Ile Thr Asn Asp Thr Val Gln Thr Tyr Asn
 1025 1030 1035 1040
 Gln Leu Leu Lys Pro Thr Leu Ser Glu Ile Glu Leu Phe Arg Val Phe
 1045 1050 1055
 Ser Leu Ser Ser Glu Phe Lys Asn Ile Thr Val Arg Glu Glu Lys
 1060 1065 1070
 Leu Glu Leu Gln Lys Leu Leu Glu Arg Val Pro Ile Pro Val Lys Glu
 1075 1080 1085
 Ser Ile Glu Glu Pro Ser Ala Lys Ile Asn Val Leu Leu Gln Ala Phe
 1090 1095 1100
 Ile Ser Gln Leu Lys Leu Glu Gly Phe Ala Leu Met Ala Asp Met Val
 1105 1110 1115 1120
 Tyr Val Thr Gln Ser Ala Gly Arg Leu Met Arg Ala Ile Phe Glu Ile
 1125 1130 1135
 Val Leu Asn Arg Gly Trp Ala Gln Leu Thr Asp Lys Thr Leu Asn Leu
 1140 1145 1150
 Cys Lys Met Ile Asp Lys Arg Met Trp Gln Ser Met Cys Pro Leu Arg
 1155 1160 1165
 Gln Phe Arg Lys Leu Pro Glu Glu Val Val Lys Lys Ile Glu Lys Lys
 1170 1175 1180
 Asn Phe Pro Phe Glu Arg Leu Tyr Asp Leu Asn His Asn Glu Ile Gly
 1185 1190 1195 1200
 Glu Leu Ile Arg Met Pro Lys Met Gly Lys Thr Ile His Lys Tyr Val
 1205 1210 1215
 His Leu Phe Pro Lys Leu Glu Leu Ser Val His Leu Gln Pro Ile Thr
 1220 1225 1230
 Arg Ser Thr Leu Lys Val Glu Leu Thr Ile Thr Pro Asp Phe Gln Trp
 1235 1240 1245
 Asp Glu Lys Val His Gly Ser Ser Glu Ala Phe Trp Ile Leu Val Glu
 1250 1255 1260
 Asp Val Asp Ser Glu Val Ile Leu His His Glu Tyr Phe Leu Leu Lys
 1265 1270 1275 1280
 Ala Lys Tyr Ala Gln Asp Glu His Leu Ile Thr Phe Phe Val Pro Val
 1285 1290 1295
 Phe Glu Pro Leu Pro Pro Gln Tyr Phe Ile Arg Val Val Ser Asp Arg
 1300 1305 1310
 Trp Leu Ser Cys Glu Thr Gln Leu Pro Val Ser Phe Arg His Leu Ile
 1315 1320 1325
 Leu Pro Glu Lys Tyr Pro Pro Pro Thr Glu Leu Leu Asp Leu Gln Pro
 1330 1335 1340
 Leu Pro Val Ser Ala Leu Arg Asn Ser Ala Phe Glu Ser Leu Tyr Gln
 1345 1350 1355 1360
 Asp Lys Phe Pro Phe Phe Asn Pro Ile Gln Thr Gln Val Phe Asn Thr
 1365 1370 1375
 Val Tyr Asn Ser Asp Asp Asn Val Phe Val Gly Ala Pro Thr Gly Ser
 1380 1385 1390
 Gly Lys Thr Ile Cys Ala Glu Phe Ala Ile Leu Arg Met Leu Leu Gln
 1395 1400 1405
 Ser Ser Glu Gly Arg Cys Val Tyr Ile Thr Pro Met Glu Ala Leu Ala
 1410 1415 1420
 Glu Gln Val Tyr Met Asp Trp Tyr Glu Lys Phe Gln Asp Arg Leu Asn
 1425 1430 1435 1440
 Lys Lys Val Val Leu Leu Thr Gly Glu Thr Ser Thr Asp Leu Lys Leu
 1445 1450 1455
 Leu Gly Lys Gly Asn Ile Ile Ile Ser Thr Pro Glu Lys Trp Asp Ile
 1460 1465 1470
 Leu Ser Arg Arg Trp Lys Gln Arg Lys Asn Val Gln Asn Ile Asn Leu
 1475 1480 1485
 Phe Val Val Asp Glu Val His Leu Ile Gly Gly Glu Asn Gly Pro Val
 1490 1495 1500
 Leu Glu Val Ile Cys Ser Arg Met Arg Tyr Ile Ser Ser Gln Ile Glu
 1505 1510 1515 1520

Arg Pro Ile Arg Ile Val Ala Leu Ser Ser Ser Leu Ser Asn Ala Lys
 1525 1530 1535
 Asp Val Ala His Trp Leu Gly Cys Ser Ala Thr Ser Thr Phe Asn Phe
 1540 1545 1550
 His Pro Asn Val Arg Pro Val Pro Leu Glu Leu His Ile Gln Gly Phe
 1555 1560 1565
 Asn Ile Ser His Thr Gln Thr Arg Leu Leu Ser Met Ala Lys Pro Val
 1570 1575 1580
 Tyr His Ala Ile Thr Lys His Ser Pro Lys Lys Pro Val Ile Val Phe
 1585 1590 1595 1600
 Val Pro Ser Arg Lys Gln Thr Arg Leu Thr Ala Ile Asp Ile Leu Thr
 1605 1610 1615
 Thr Cys Ala Ala Asp Ile Gln Arg Gln Arg Phe Leu His Cys Thr Glu
 1620 1625 1630
 Lys Asp Leu Ile Pro Tyr Leu Glu Lys Leu Ser Asp Ser Thr Leu Lys
 1635 1640 1645
 Glu Thr Leu Leu Asn Gly Val Gly Tyr Leu His Glu Gly Leu Ser Pro
 1650 1655 1660
 Met Glu Arg Arg Leu Val Glu Gln Leu Phe Ser Ser Gly Ala Ile Gln
 1665 1670 1675 1680
 Val Val Val Ala Ser Arg Ser Leu Cys Trp Gly Met Asn Val Ala Ala
 1685 1690 1695
 His Leu Val Ile Ile Met Asp Thr Gln Tyr Tyr Asn Gly Lys Ile His
 1700 1705 1710
 Ala Tyr Val Asp Tyr Pro Ile Tyr Asp Val Leu Gln Met Val Gly His
 1715 1720 1725
 Ala Asn Arg Pro Leu Gln Asp Asp Glu Gly Arg Cys Val Ile Met Cys
 1730 1735 1740
 Gln Gly Ser Lys Lys Asp Phe Phe Lys Lys Phe Leu Tyr Glu Pro Leu
 1745 1750 1755 1760
 Pro Val Glu Ser His Leu Asp His Cys Met His Asp His Phe Asn Ala
 1765 1770 1775
 Glu Ile Val Thr Lys Thr Ile Glu Asn Lys Gln Asp Ala Val Asp Tyr
 1780 1785 1790
 Leu Thr Trp Thr Phe Leu Tyr Arg Arg Met Thr Gln Asn Pro Asn Tyr
 1795 1800 1805
 Tyr Asn Leu Gln Gly Ile Ser His Arg His Leu Ser Asp His Leu Ser
 1810 1815 1820
 Glu Leu Val Glu Gln Thr Leu Ser Asp Leu Glu Gln Ser Lys Cys Ile
 1825 1830 1835 1840
 Ser Ile Glu Asp Glu Met Asp Val Ala Pro Leu Asn Leu Gly Met Ile
 1845 1850 1855
 Ala Ala Tyr Tyr Ile Asn Tyr Thr Thr Ile Glu Leu Phe Ser Met
 1860 1865 1870
 Ser Leu Asn Ala Lys Thr Lys Val Arg Gly Leu Ile Glu Ile Ile Ser
 1875 1880 1885
 Asn Ala Ala Glu Tyr Glu Asn Ile Pro Ile Arg His His Glu Asp Asn
 1890 1895 1900
 Leu Leu Arg Gln Leu Ala Gln Lys Val Pro His Lys Leu Asn Asn Pro
 1905 1910 1915 1920
 Lys Phe Asn Asp Pro His Val Lys Thr Asn Leu Leu Leu Gln Ala His
 1925 1930 1935
 Leu Ser Arg Met Gln Leu Ser Ala Glu Leu Gln Ser Asp Thr Glu Glu
 1940 1945 1950
 Ile Leu Ser Lys Ala Ile Arg Leu Ile Gln Ala Cys Val Asp Val Leu
 1955 1960 1965
 Ser Ser Asn Gly Trp Leu Ser Pro Ala Leu Ala Ala Met Glu Leu Ala
 1970 1975 1980
 Gln Met Val Thr Gln Ala Met Trp Ser Lys Asp Ser Tyr Leu Lys Gln
 1985 1990 1995 2000
 Leu Pro His Phe Thr Ser Glu His Ile Lys Arg Cys Thr Asp Lys Gly
 2005 2010 2015
 Val Glu Ser Val Phe Asp Ile Met Glu Met Glu Asp Glu Glu Arg Asn
 2020 2025 2030

Ala Leu Leu Gln Leu Thr Asp Ser Gln Ile Ala Asp Val Ala Arg Phe
 2035 2040 2045
 Cys Asn Arg Tyr Pro Asn Ile Glu Leu Ser Tyr Glu Val Val Asp Lys
 2050 2055 2060
 Asp Ser Ile Arg Ser Gly Gly Pro Val Val Val Leu Val Gln Leu Glu
 2065 2070 2075 2080
 Arg Glu Glu Glu Val Thr Gly Pro Val Ile Ala Pro Leu Phe Pro Gln
 2085 2090 2095
 Lys Arg Glu Glu Gly Trp Trp Val Val Ile Gly Asp Ala Lys Ser Asn
 2100 2105 2110
 Ser Leu Ile Ser Ile Lys Arg Leu Thr Leu Gln Gln Lys Ala Lys Val
 2115 2120 2125
 Lys Leu Asp Phe Val Ala Pro Ala Thr Gly Ala His Asn Tyr Thr Leu
 2130 2135 2140
 Tyr Phe Met Ser Asp Ala Tyr Met Gly Cys Asp Gln Glu Tyr Lys Phe
 2145 2150 2155 2160
 Ser Val Asp Val Lys Glu Ala Glu Thr Asp Ser Asp Ser Asp *

<210> 1652
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 1652
 Met Ile Val Leu Gly Phe Ser Asn Pro Ile Asn Trp Val Arg Thr Arg
 1 5 10 15
 Ile Lys Ala Phe Leu Ile Trp Ala Tyr Phe Asp Lys Glu Phe Ser Ile
 20 25 30
 Thr Glu Phe Ser Glu Gly Ala Lys Gln Ala Phe Ala His Val Ser Lys
 35 40 45
 Leu Leu Ser Gln Cys Lys Phe Asp Leu Leu Glu Glu Leu Val Ala Lys
 50 55 60
 Glu Val Leu His Ala Leu Lys Glu Lys Val Thr Ser Leu Pro Asp Asn
 65 70 75 80
 His Lys Asn Ala Leu Ala Ala Asn Ile Asp Glu Ile Val Phe Thr Ser
 85 90 95
 Thr Gly Asp Ile Ser Ile Tyr Tyr Asp Glu Lys Gly Arg Lys Phe Val
 100 105 110
 Asn Ile Leu Met Cys Phe Trp Tyr Leu Thr Ser Ala Asn Ile Pro Ser
 115 120 125
 Glu Thr Leu Arg Gly Ala Ser Val Phe Gln Val Lys Leu Gly Asn Gln
 130 135 140
 Asn Val Glu Thr Lys Gln Leu Leu Ser Ala Ser Tyr Glu Phe Gln Arg
 145 150 155 160
 Glu Phe Thr Gln Gly Val Lys Pro Asp Trp Thr Ile Ala Arg Ile Glu
 165 170 175
 His Ser Lys Leu Leu Glu *

<210> 1653
 <211> 1394
 <212> PRT
 <213> Homo sapiens

<400> 1653
 Met Pro Asn Ser Glu Arg His Gly Gly Lys Lys Asp Gly Ser Gly Gly
 1 5 10 15

Ala Ser Gly Thr Leu Gln Pro Ser Ser Gly Gly Gly Ser Ser Asn Ser
 20 25 30
 Arg Glu Arg His Arg Leu Val Ser Lys His Lys Arg His Lys Ser Lys
 35 40 45
 His Ser Lys Asp Met Gly Leu Val Thr Pro Glu Ala Ala Ser Leu Gly
 50 55 60
 Thr Val Ile Lys Pro Leu Val Glu Tyr Asp Asp Ile Ser Ser Asp Ser
 65 70 75 80
 Asp Thr Phe Ser Asp Met Ala Phe Lys Leu Asp Arg Arg Glu Asn
 85 90 95
 Asp Glu Arg Arg Gly Ser Asp Arg Ser Asp Arg Leu His Lys His Arg
 100 105 110
 His His Gln His Arg Arg Ser Arg Asp Leu Leu Lys Ala Lys Gln Thr
 115 120 125
 Glu Lys Glu Lys Ser Gln Glu Val Ser Ser Lys Ser Gly Ser Met Lys
 130 135 140
 Asp Arg Ile Ser Gly Ser Ser Lys Arg Ser Asn Glu Glu Thr Asp Asp
 145 150 155 160
 Tyr Gly Lys Ala Gln Val Ala Lys Ser Ser Ser Lys Glu Ser Arg Ser
 165 170 175
 Ser Lys Leu His Lys Glu Lys Thr Arg Lys Glu Arg Glu Leu Lys Ser
 180 185 190
 Gly His Lys Asp Arg Ser Lys Ser His Arg Lys Arg Glu Thr Pro Lys
 195 200 205
 Ser Tyr Lys Thr Val Asp Ser Pro Lys Arg Arg Ser Arg Ser Pro His
 210 215 220
 Arg Lys Trp Ser Asp Ser Ser Lys Gln Asp Asp Ser Pro Ser Gly Ala
 225 230 235 240
 Ser Tyr Gly Gln Asp Tyr Asp Leu Ser Pro Ser Arg Ser His Thr Ser
 245 250 255
 Ser Asn Tyr Asp Ser Tyr Lys Lys Ser Pro Gly Ser Thr Ser Arg Arg
 260 265 270
 Gln Ser Val Ser Pro Pro Tyr Lys Glu Pro Ser Ala Tyr Gln Ser Ser
 275 280 285
 Thr Arg Ser Pro Ser Pro Tyr Ser Arg Arg Gln Arg Ser Val Ser Pro
 290 295 300
 Tyr Ser Arg Arg Arg Ser Ser Ser Tyr Glu Arg Ser Gly Ser Tyr Ser
 305 310 315 320
 Gly Arg Ser Pro Ser Pro Tyr Gly Arg Arg Arg Ser Ser Ser Pro Phe
 325 330 335
 Leu Ser Lys Arg Ser Leu Ser Arg Ser Pro Leu Pro Ser Arg Lys Ser
 340 345 350
 Met Lys Ser Arg Ser Arg Ser Pro Ala Tyr Ser Arg His Ser Ser Ser
 355 360 365
 His Ser Lys Lys Lys Arg Ser Ser Ser Arg Ser Arg His Ser Ser Ile
 370 375 380
 Ser Pro Val Arg Leu Pro Leu Asn Ser Ser Leu Gly Ala Glu Leu Ser
 385 390 395 400
 Lys Lys Lys Lys Lys Lys Ala Ala Ala Ala Ala Ala Lys Met Asp
 405 410 415
 Gly Lys Glu Ser Lys Gly Ser Pro Val Phe Leu Pro Arg Lys Glu Asn
 420 425 430
 Ser Ser Val Glu Ala Lys Asp Ser Gly Leu Glu Ser Lys Lys Leu Pro
 435 440 445
 Arg Ser Val Lys Leu Glu Lys Ser Ala Pro Asp Thr Glu Leu Val Asn
 450 455 460
 Val Thr His Leu Asn Thr Glu Val Lys Asn Ser Ser Asp Thr Gly Lys
 465 470 475 480
 Val Lys Leu Asp Glu Asn Ser Glu Lys His Leu Val Lys Asp Leu Lys
 485 490 495
 Ala Gln Gly Thr Arg Asp Ser Lys Pro Ile Ala Leu Lys Glu Glu Ile
 500 505 510
 Val Thr Pro Lys Glu Thr Glu Thr Ser Glu Lys Glu Thr Pro Pro Pro
 515 520 525

Leu	Pro	Thr	Ile	Ala	Ser	Pro	Pro	Pro	Pro	Leu	Pro	Thr	Thr	Thr	Pro
530						535				540					
Pro	Pro	Gln	Thr	Pro	Pro	Leu	Pro	Pro	Leu	Pro	Pro	Ile	Pro	Ala	Leu
545						550				555					560
Pro	Gln	Gln	Pro	Pro	Leu	Pro	Pro	Ser	Gln	Pro	Ala	Phe	Ser	Gln	Val
					565				570					575	
Pro	Ala	Ser	Ser	Thr	Ser	Thr	Leu	Pro	Pro	Ser	Thr	His	Ser	Lys	Thr
			580					585					590		
Ser	Ala	Val	Ser	Ser	Gln	Ala	Asn	Ser	Gln	Pro	Pro	Val	Gln	Val	Ser
			595				600					605			
Val	Lys	Thr	Gln	Val	Ser	Val	Thr	Ala	Ala	Ile	Pro	His	Leu	Lys	Thr
610						615				620					
Ser	Thr	Leu	Pro	Pro	Leu	Pro	Leu	Pro	Pro	Leu	Leu	Pro	Gly	Gly	Asp
625					630					635					640
Asp	Met	Asp	Ser	Pro	Lys	Glu	Thr	Leu	Pro	Ser	Lys	Pro	Val	Lys	Lys
					645				650					655	
Glu	Lys	Glu	Gln	Arg	Thr	Arg	His	Leu	Leu	Thr	Asp	Leu	Pro	Leu	Pro
			660					665					670		
Pro	Glu	Leu	Pro	Gly	Gly	Asp	Leu	Ser	Pro	Pro	Asp	Ser	Pro	Glu	Pro
			675				680					685			
Lys	Ala	Ile	Thr	Pro	Pro	Gln	Gln	Pro	Tyr	Lys	Lys	Arg	Pro	Lys	Ile
690						695				700					
Cys	Cys	Pro	Arg	Tyr	Gly	Glu	Arg	Arg	Gln	Thr	Glu	Ser	Asp	Trp	Gly
705					710					715					720
Lys	Arg	Cys	Val	Asp	Lys	Phe	Asp	Ile	Ile	Gly	Ile	Ile	Gly	Glu	Gly
					725				730					735	
Thr	Tyr	Gly	Gln	Val	Tyr	Lys	Ala	Arg	Asp	Lys	Asp	Thr	Gly	Glu	Leu
			740					745					750		
Val	Ala	Leu	Lys	Lys	Val	Arg	Leu	Asp	Asn	Glu	Lys	Glu	Gly	Phe	Pro
			755				760					765			
Ile	Thr	Ala	Ile	Arg	Glu	Ile	Lys	Ile	Leu	Arg	Gln	Leu	Ile	His	Arg
770						775					780				
Ser	Val	Val	Asn	Met	Lys	Glu	Ile	Val	Thr	Asp	Lys	Gln	Asp	Ala	Leu
785					790					795					800
Asp	Phe	Lys	Lys	Asp	Lys	Gly	Ala	Phe	Tyr	Leu	Val	Phe	Glu	Tyr	Met
					805				810					815	
Asp	His	Asp	Leu	Met	Gly	Leu	Leu	Glu	Ser	Gly	Leu	Val	His	Phe	Ser
			820					825					830		
Glu	Asp	His	Ile	Lys	Ser	Phe	Met	Lys	Gln	Leu	Met	Glu	Gly	Leu	Glu
			835				840					845			
Tyr	Cys	His	Lys	Lys	Asn	Phe	Leu	His	Arg	Asp	Ile	Lys	Cys	Ser	Asn
850					855					860					
Ile	Leu	Leu	Asn	Asn	Ser	Gly	Gln	Ile	Lys	Leu	Ala	Asp	Phe	Gly	Leu
865					870					875					880
Ala	Arg	Leu	Tyr	Asn	Ser	Glu	Glu	Ser	Arg	Pro	Tyr	Thr	Asn	Lys	Val
					885				890					895	
Ile	Thr	Leu	Trp	Tyr	Arg	Pro	Pro	Glu	Leu	Leu	Leu	Gly	Glu	Glu	Arg
			900					905					910		
Tyr	Thr	Pro	Ala	Ile	Asp	Val	Trp	Ser	Cys	Gly	Cys	Ile	Leu	Gly	Glu
			915				920					925			
Leu	Phe	Thr	Lys	Lys	Pro	Ile	Phe	Gln	Ala	Asn	Leu	Glu	Leu	Ala	Gln
930						935					940				
Leu	Glu	Leu	Ile	Ser	Arg	Leu	Cys	Gly	Ser	Pro	Cys	Pro	Ala	Val	Trp
945					950					955					960
Pro	Asp	Val	Ile	Lys	Leu	Pro	Tyr	Phe	Asn	Thr	Met	Lys	Pro	Lys	Lys
					965				970					975	
Gln	Tyr	Arg	Arg	Arg	Leu	Arg	Glu	Glu	Phe	Ser	Phe	Ile	Pro	Ser	Ala
					980				985				990		
Ala	Leu	Asp	Leu	Leu	Asp	His	Met	Leu	Thr	Leu	Asp	Pro	Ser	Lys	Arg
					995		1000				1005				
Cys	Thr	Ala	Glu	Gln	Thr	Leu	Gln	Ser	Asp	Phe	Leu	Lys	Asp	Val	Glu
1010						1015				1020					
Leu	Ser	Lys	Met	Ala	Pro	Pro	Asp	Leu	Pro	His	Trp	Gln	Asp	Cys	His
1025					1030					1035					1040

Glu Leu Trp Ser Lys Lys Arg Arg Arg Gln Arg Gln Ser Gly Val Val
 1045 1050 1055
 Val Glu Glu Pro Pro Pro Ser Lys Thr Ser Arg Lys Glu Thr Thr Ser
 1060 1065 1070
 Gly Thr Ser Thr Glu Pro Val Lys Asn Ser Ser Pro Ala Pro Pro Gln
 1075 1080 1085
 Pro Ala Pro Gly Lys Val Glu Ser Gly Ala Gly Asp Ala Ile Gly Leu
 1090 1095 1100
 Ala Asp Ile Thr Gln Gln Leu Asn Gln Ser Glu Leu Ala Val Leu Leu
 1105 1110 1115 1120
 Asn Leu Leu Gln Ser Gln Thr Asp Leu Ser Ile Pro Gln Met Ala Gln
 1125 1130 1135
 Leu Leu Asn Ile His Ser Asn Pro Glu Met Gln Gln Gln Leu Glu Ala
 1140 1145 1150
 Leu Asn Gln Ser Ile Ser Ala Leu Thr Glu Ala Thr Ser Gln Gln Gln
 1155 1160 1165
 Asp Ser Glu Thr Met Ala Pro Glu Glu Ser Leu Lys Glu Ala Pro Ser
 1170 1175 1180
 Ala Pro Val Ile Leu Pro Ser Ala Glu Gln Met Thr Leu Glu Ala Ser
 1185 1190 1195 1200
 Ser Thr Pro Ala Asp Met Gln Asn Ile Leu Ala Val Leu Leu Ser Gln
 1205 1210 1215
 Leu Met Lys Thr Gln Glu Pro Ala Gly Ser Leu Glu Glu Asn Asn Ser
 1220 1225 1230
 Asp Lys Asn Ser Gly Pro Gln Gly Pro Arg Arg Thr Pro Thr Met Pro
 1235 1240 1245
 Gln Glu Glu Ala Ala Ala Cys Pro Pro His Ile Leu Pro Pro Glu Lys
 1250 1255 1260
 Arg Pro Pro Glu Pro Pro Gly Pro Pro Pro Pro Pro Pro Pro
 1265 1270 1275 1280
 Leu Val Glu Gly Asp Leu Ser Ser Ala Pro Gln Glu Leu Asn Pro Ala
 1285 1290 1295
 Val Thr Ala Ala Leu Leu Gln Leu Leu Ser Gln Pro Glu Ala Glu Pro
 1300 1305 1310
 Pro Gly His Leu Pro His Glu His Gln Ala Leu Arg Pro Met Glu Tyr
 1315 1320 1325
 Ser Thr Arg Pro Arg Pro Asn Arg Thr Tyr Gly Asn Thr Asp Gly Pro
 1330 1335 1340
 Glu Thr Gly Phe Ser Ala Ile Asp Thr Asp Glu Arg Asn Ser Gly Pro
 1345 1350 1355 1360
 Ala Leu Thr Glu Ser Leu Val Gln Thr Leu Val Lys Asn Arg Thr Phe
 1365 1370 1375
 Ser Gly Ser Leu Ser His Leu Gly Glu Ser Ser Ser Tyr Gln Gly Thr
 1380 1385 1390
 Gly *
 1393

<210> 1654
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 1654
 Met Ser Asp Leu Glu Ala Lys Leu Ser Thr Glu His Leu Gly Asp Lys
 1 5 10 15
 Ile Lys Asp Glu Asp Ile Lys Leu Arg Val Ile Gly Gln Asp Ser Ser
 20 25 30
 Glu Ile His Phe Lys Val Lys Met Thr Thr Pro Leu Lys Lys Leu Lys
 35 40 45
 Lys Ser Tyr Cys Gln Arg Gln Gly Val Pro Val Asn Ser Leu Arg Phe
 50 55 60

Leu Phe Glu Gly Gln Arg Ile Ala Asp Asn His Thr Pro Glu Glu Leu
 65 70 75 80
 Gly Met Glu Glu Glu Asp Val Ile Glu Val Tyr Gln Glu Gln Ile Gly
 85 90 95
 Gly His Ser Thr Val *
 100 101

<210> 1655
 <211> 496
 <212> PRT
 <213> Homo sapiens

<400> 1655
 Met Pro His Gln Arg Pro Arg Thr Cys Ala Met Asn Pro Glu Leu Thr
 1 5 10 15
 Met Glu Ser Leu Gly Thr Leu His Gly Ala Arg Gly Gly Gly Ser Gly
 20 25 30
 Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Pro Gly His
 35 40 45
 Glu Gln Glu Leu Leu Ala Ser Pro Ser Pro His His Ala Arg Arg Gly
 50 55 60
 Pro Arg Gly Ser Leu Arg Gly Pro Pro Pro Pro Pro Thr Ala His Gln
 65 70 75 80
 Glu Leu Gly Thr Ala Ala Ala Ala Ala Ala Ala Ser Arg Ser Ala
 85 90 95
 Met Val Thr Ser Met Ala Ser Ile Leu Asp Gly Gly Asp Tyr Arg Pro
 100 105 110
 Glu Leu Ser Ile Pro Leu His His Ala Met Ser Met Ser Cys Asp Ser
 115 120 125
 Ser Pro Pro Gly Met Gly Met Ser Asn Thr Tyr Thr Thr Leu Thr Pro
 130 135 140
 Leu Gln Pro Leu Pro Pro Ile Ser Thr Val Ser Asp Lys Phe His His
 145 150 155 160
 Pro His Pro His His Pro His His His His His His His Gln
 165 170 175
 Arg Leu Ser Gly Asn Val Ser Gly Ser Phe Thr Leu Met Arg Asp Glu
 180 185 190
 Arg Gly Leu Pro Ala Met Asn Asn Leu Tyr Ser Pro Tyr Lys Glu Met
 195 200 205
 Pro Gly Met Ser Gln Ser Leu Ser Pro Leu Ala Ala Thr Pro Leu Gly
 210 215 220
 Asn Gly Leu Gly Gly Leu His Asn Ala Gln Gln Ser Leu Pro Asn Tyr
 225 230 235 240
 Gly Pro Pro Gly His Asp Lys Met Leu Ser Pro Asn Phe Asp Ala His
 245 250 255
 His Thr Ala Met Leu Thr Arg Gly Glu Gln His Leu Ser Arg Gly Leu
 260 265 270
 Gly Thr Pro Pro Ala Ala Met Met Ser His Leu Asn Gly Leu His His
 275 280 285
 Pro Gly His Thr Gln Ser His Gly Pro Val Leu Ala Pro Ser Arg Glu
 290 295 300
 Arg Pro Pro Ser Ser Ser Ser Gly Ser Gln Val Ala Thr Ser Gly Gln
 305 310 315 320
 Leu Glu Glu Ile Asn Thr Lys Glu Val Ala Gln Arg Ile Thr Ala Glu
 325 330 335
 Leu Lys Arg Tyr Ser Ile Pro Gln Ala Ile Phe Ala Gln Arg Val Leu
 340 345 350
 Cys Arg Ser Gln Gly Thr Leu Ser Asp Leu Leu Arg Asn Pro Lys Pro
 355 360 365
 Trp Ser Lys Leu Lys Ser Gly Arg Glu Thr Phe Arg Arg Met Trp Lys
 370 375 380

Trp Leu Gln Glu Pro Glu Phe Gln Arg Met Ser Ala Leu Arg Leu Ala
 385 390 395 400
 Ala Cys Lys Arg Lys Glu Gln Glu Pro Asn Lys Asp Arg Asn Asn Ser
 405 410 415
 Gln Lys Lys Ser Arg Leu Val Phe Thr Asp Leu Gln Arg Arg Thr Leu
 420 425 430
 Phe Ala Ile Phe Lys Glu Asn Lys Arg Pro Ser Lys Glu Met Gln Ile
 435 440 445
 Thr Ile Ser Gln Gln Leu Gly Leu Glu Leu Thr Thr Val Ser Asn Phe
 450 455 460
 Phe Met Asn Ala Arg Arg Arg Ser Leu Glu Lys Trp Gln Asp Asp Leu
 465 470 475 480
 Ser Thr Gly Gly Ser Ser Ser Thr Ser Ser Thr Cys Thr Lys Ala *
 485 490 495

<210> 1656
 <211> 709
 <212> PRT
 <213> Homo sapiens

<400> 1656
 Met Asp Asn Val Gln Ser Lys Arg Arg Arg Tyr Met Glu Glu Glu Tyr
 1 5 10 15
 Glu Ala Glu Phe Gln Val Lys Ile Thr Ala Lys Gly Asp Ile Asn Gln
 20 25 30
 Lys Leu Gln Lys Val Ile Gln Trp Leu Leu Glu Glu Lys Leu Cys Ala
 35 40 45
 Leu Gln Cys Ala Val Phe Asp Lys Thr Leu Ala Glu Leu Lys Thr Arg
 50 55 60
 Val Glu Lys Ile Glu Cys Asn Lys Arg His Lys Thr Val Leu Thr Glu
 65 70 75 80
 Leu Gln Ala Lys Ile Ala Arg Leu Thr Lys Arg Phe Glu Ala Ala Lys
 85 90 95
 Glu Asp Leu Lys Lys Arg His Glu His Pro Pro Asn Pro Pro Val Ser
 100 105 110
 Pro Gly Lys Thr Val Asn Asp Val Asn Ser Asn Asn Asn Met Ser Tyr
 115 120 125
 Arg Asn Ala Gly Thr Val Arg Gln Met Leu Glu Ser Lys Arg Asn Val
 130 135 140
 Ser Glu Ser Ala Pro Pro Ser Phe Gln Thr Pro Val Asn Thr Val Ser
 145 150 155 160
 Ser Thr Asn Leu Val Thr Pro Pro Ala Val Val Ser Ser Gln Pro Lys
 165 170 175
 Leu Gln Thr Pro Val Thr Ser Gly Ser Leu Thr Ala Thr Ser Val Leu
 180 185 190
 Pro Ala Pro Asn Thr Ala Thr Val Val Ala Thr Thr Gln Val Pro Ser
 195 200 205
 Gly Asn Pro Gln Pro Thr Ile Ser Leu Gln Pro Leu Pro Val Ile Leu
 210 215 220
 His Val Pro Val Ala Val Ser Ser Gln Pro Gln Leu Leu Gln Ser His
 225 230 235 240
 Pro Gly Thr Leu Val Thr Asn Gln Pro Ser Gly Asn Val Glu Phe Ile
 245 250 255
 Ser Val Gln Ser Pro Pro Thr Val Ser Gly Leu Thr Lys Asn Pro Val
 260 265 270
 Ser Leu Pro Ser Leu Pro Asn Pro Thr Lys Pro Asn Asn Val Pro Ser
 275 280 285
 Val Pro Ser Pro Ser Ile Gln Arg Asn Pro Thr Ala Ser Ala Ala Pro
 290 295 300
 Leu Gly Thr Thr Leu Ala Val Gln Ala Val Pro Thr Ala His Ser Ile
 305 310 315 320

Val Gln Ala Thr Arg Thr Ser Leu Pro Thr Val Gly Pro Ser Gly Leu
 325 330 335
 Tyr Ser Pro Ser Thr Asn Arg Gly Pro Ile Gln Met Lys Ile Pro Ile
 340 345 350
 Ser Ala Phe Ser Thr Ser Ser Ala Ala Glu Gln Asn Ser Asn Thr Thr
 355 360 365
 Pro Arg Ile Glu Asn Gln Thr Asn Lys Thr Ile Asp Ala Ser Val Ser
 370 375 380
 Lys Lys Ala Ala Asp Ser Thr Ser Gln Cys Gly Lys Ala Thr Gly Ser
 385 390 395 400
 Asp Ser Ser Gly Val Ile Asp Leu Thr Met Asp Asp Glu Glu Ser Gly
 405 410 415
 Ala Ser Gln Asp Pro Lys Lys Leu Asn His Thr Pro Val Ser Thr Met
 420 425 430
 Ser Ser Ser Gln Pro Val Ser Arg Pro Leu Gln Pro Ile Gln Pro Ala
 435 440 445
 Pro Pro Leu Gln Pro Ser Gly Val Pro Thr Ser Gly Pro Ser Gln Thr
 450 455 460
 Thr Ile His Leu Leu Pro Thr Ala Pro Thr Thr Val Asn Val Thr His
 465 470 475 480
 Arg Pro Val Thr Gln Val Thr Thr Arg Leu Pro Val Pro Arg Ala Pro
 485 490 495
 Ala Asn His Gln Val Val Tyr Thr Thr Leu Pro Ala Pro Pro Ala Gln
 500 505 510
 Ala Pro Leu Arg Gly Thr Val Met Gln Ala Pro Ala Val Arg Gln Val
 515 520 525
 Asn Pro Gln Asn Ser Val Thr Val Arg Val Pro Gln Thr Thr Thr Tyr
 530 535 540
 Val Val Asn Asn Gly Leu Thr Leu Gly Ser Thr Gly Pro Gln Leu Thr
 545 550 555 560
 Val His His Arg Pro Pro Gln Val His Thr Glu Pro Pro Arg Pro Val
 565 570 575
 His Pro Ala Pro Leu Pro Glu Ala Pro Gln Pro Gln Arg Leu Pro Pro
 580 585 590
 Glu Ala Ala Ser Thr Ser Leu Pro Gln Lys Pro His Leu Lys Leu Ala
 595 600 605
 Arg Val Gln Ser Gln Asn Gly Ile Val Leu Ser Trp Ser Val Leu Glu
 610 615 620
 Val Asp Arg Ser Cys Ala Thr Val Asp Ser Tyr His Leu Tyr Ala Tyr
 625 630 635 640
 His Glu Glu Pro Ser Ala Thr Val Pro Ser Gln Trp Lys Lys Ile Gly
 645 650 655
 Glu Val Lys Ala Leu Pro Leu Pro Met Ala Cys Thr Leu Thr Gln Phe
 660 665 670
 Val Ser Gly Ser Lys Tyr Tyr Phe Ala Val Arg Ala Lys Asp Ile Tyr
 675 680 685
 Gly Arg Phe Gly Pro Phe Cys Asp Pro Gln Ser Thr Asp Val Ile Ser
 690 695 700
 Ser Thr Gln Ser Ser
 705 709

<210> 1657

<211> 277

<212> PRT

<213> Homo sapiens

<400> 1657

Met Gln Pro Phe Ser Ile Pro Val Gln Ile Thr Leu Gln Gly Ser Arg
 1 5 10 15
 Arg Arg Gln Gly Arg Thr Ala Phe Pro Ala Ser Gly Lys Lys Arg Glu
 20 25 30

Thr Asp Tyr Ser Asp Gly Asp Pro Leu Asp Val His Lys Arg Leu Pro
 35 40 45
 Ser Ser Thr Gly Glu Asp Arg Ala Val Met Leu Gly Phe Ala Met Met
 50 55 60
 Gly Phe Ser Val Leu Met Phe Phe Leu Leu Gly Thr Thr Ile Leu Lys
 65 70 75 80
 Pro Phe Met Leu Ser Ile Gln Arg Glu Glu Ser Thr Cys Thr Ala Ile
 85 90 95
 His Thr Asp Ile Met Asp Asp Trp Leu Asp Cys Ala Phe Thr Cys Gly
 100 105 110
 Val His Cys His Gly Gln Gly Lys Tyr Pro Cys Leu Gln Val Phe Val
 115 120 125
 Asn Leu Ser His Pro Gly Gln Lys Ala Leu Leu His Tyr Asn Glu Glu
 130 135 140
 Ala Val Gln Ile Asn Pro Lys Cys Phe Tyr Thr Pro Lys Cys His Gln
 145 150 155 160
 Asp Arg Asn Asp Leu Leu Asn Ser Ala Leu Asp Ile Lys Glu Phe Phe
 165 170 175
 Asp His Lys Asn Gly Thr Pro Phe Ser Cys Phe Tyr Ser Pro Ala Ser
 180 185 190
 Gln Ser Glu Asp Val Ile Leu Ile Lys Lys Tyr Asp Gln Met Ala Ile
 195 200 205
 Phe His Cys Leu Phe Trp Pro Ser Leu Thr Leu Leu Gly Gly Ala Leu
 210 215 220
 Ile Val Gly Met Val Arg Leu Thr Gln His Leu Ser Leu Leu Cys Glu
 225 230 235 240
 Lys Tyr Ser Thr Val Val Arg Asp Glu Val Gly Gly Lys Val Pro Tyr
 245 250 255
 Ile Glu Gln His Gln Phe Lys Leu Cys Ile Met Arg Arg Ser Lys Gly
 260 265 270
 Arg Ala Glu Lys Ser
 275 277

<210> 1658

<211> 292

<212> PRT

<213> Homo sapiens

<400> 1658

Met Ala Cys Leu Ser Pro Ser Gln Leu Gln Lys Phe Gln Gln Asp Gly
 1 5 10 15
 Phe Leu Val Leu Glu Gly Phe Leu Ser Ala Glu Glu Cys Val Ala Met
 20 25 30
 Gln Gln Arg Ile Gly Glu Ile Val Ala Glu Met Asp Val Pro Leu His
 35 40 45
 Cys Arg Thr Glu Phe Ser Thr Gln Glu Glu Glu Gln Leu Arg Ala Gln
 50 55 60
 Gly Ser Thr Asp Tyr Phe Leu Ser Ser Gly Asp Lys Ile Arg Phe Phe
 65 70 75 80
 Phe Glu Lys Gly Val Phe Asp Glu Lys Gly Asn Phe Leu Val Pro Pro
 85 90 95
 Glu Lys Ser Ile Asn Lys Ile Gly His Ala Leu His Ala His Asp Pro
 100 105 110
 Val Phe Lys Ser Ile Thr His Ser Phe Lys Val Gln Thr Leu Ala Arg
 115 120 125
 Ser Leu Gly Leu Gln Met Pro Val Val Val Gln Ser Met Tyr Ile Phe
 130 135 140
 Lys Gln Pro His Phe Gly Gly Glu Val Ser Pro His Gln Asp Ala Ser
 145 150 155 160
 Phe Leu Tyr Thr Glu Pro Leu Gly Arg Val Leu Gly Val Trp Ile Ala
 165 170 175

Val Glu Asp Ala Thr Leu Glu Asn Gly Cys Leu Trp Phe Ile Pro Gly
 180 185 190
 Ser His Thr Ser Gly Val Ser Arg Arg Met Val Arg Ala Pro Val Gly
 195 200 205
 Ser Ala Pro Gly Thr Ser Phe Leu Gly Ser Glu Pro Ala Arg Asp Asn
 210 215 220
 Ser Leu Phe Val Pro Thr Pro Val Gln Arg Gly Ala Leu Val Leu Ile
 225 230 235 240
 His Gly Glu Val Val His Lys Ser Lys Gln Asn Leu Ser Asp Arg Ser
 245 250 255
 Arg Gln Ala Tyr Thr Phe His Leu Met Glu Ala Ser Gly Thr Thr Trp
 260 265 270
 Ser Pro Glu Asn Trp Leu Gln Pro Thr Ala Glu Leu Pro Phe Pro Gln
 275 280 285
 Leu Tyr Thr *
 290 291

<210> 1659
 <211> 67
 <212> PRT
 <213> Homo sapiens

<400> 1659
 Met Arg Asn Thr Phe Ala Glu Leu Lys Asn Ser Leu Glu Ala Leu Ser
 1 5 10 15
 Ser Arg Met Asp Gln Ala Glu Glu Arg Ile Gly Thr Gln Ala Gly Val
 20 25 30
 Gln Trp Arg Asp His Gly Ser Leu Gln Pro Gln Pro Pro Glu Phe Lys
 35 40 45
 Gln Cys Phe His Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Ala Cys
 50 55 60
 Leu Ser *
 65 66

<210> 1660
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 1660
 Met Gly Lys Ser Lys Ala Lys Pro Asn Gly Lys Lys Pro Ala Ala Glu
 1 5 10 15
 Glu Arg Lys Ala Tyr Leu Glu Pro Glu His Thr Lys Ala Arg Ile Thr
 20 25 30
 Asp Phe Gln Phe Lys Glu Leu Val Val Leu Pro Arg Glu Ile Asp Leu
 35 40 45
 Asn Glu Trp Leu Ala Ser Asn Thr Thr Thr Phe Phe His His Ile Asn
 50 55 60
 Leu Gln Tyr Ser Thr Ile Ser Glu Phe Cys Thr Gly Glu Thr Cys Gln
 65 70 75 80
 Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp Glu Arg Gly
 85 90 95
 Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe Val Met Ser
 100 105 110
 Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro Thr Lys Tyr
 115 120 125
 Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg Lys Ile Cys
 130 135 140

Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala His Phe Lys
 145 150 155 160
 Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr Leu Tyr Val
 165 170 175
 His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp Pro Lys Glu
 180 185 190
 Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser Gly Ala Gly
 195 200 205
 Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser Gly Gly Pro
 210 215 220
 Gly Ala Gln Asn His Val Lys Glu Arg *
 225 230 233

<210> 1661
 <211> 277
 <212> PRT
 <213> Homo sapiens

<400> 1661
 Met Gln Val His Ala Leu Arg Glu Asp Phe Arg Glu Lys Asn Ser Ser
 1 5 10 15
 Thr Asn Gln His Ile Ile Arg Leu Glu Ser Leu Gln Ala Glu Ile Lys
 20 25 30
 Met Leu Ser Asp Arg Lys Arg Glu Leu Glu His Arg Leu Ser Ala Thr
 35 40 45
 Leu Glu Glu Asn Asp Leu Leu Gln Gly Thr Val Glu Glu Leu Gln Asp
 50 55 60
 Arg Val Leu Ile Leu Glu Arg Gln Gly His Asp Lys Asp Leu Gln Leu
 65 70 75 80
 His Gln Ser Gln Leu Glu Leu Gln Glu Val Arg Leu Ser Cys Arg Gln
 85 90 95
 Leu Gln Val Lys Val Glu Glu Leu Thr Glu Glu Arg Ser Leu Gln Ser
 100 105 110
 Ser Ala Ala Thr Ser Thr Ser Leu Ser Glu Ile Glu Gln Ser Met
 115 120 125
 Glu Ala Glu Glu Leu Glu Gln Glu Arg Glu Gln Val Thr Leu Leu Ser
 130 135 140
 Val Glu Met Thr Ala Leu Lys Glu Glu Arg Asp Arg Leu Arg Val Thr
 145 150 155 160
 Ser Glu Asp Lys Glu Pro Lys Glu Gln Leu Gln Lys Ala Ile Arg Asp
 165 170 175
 Arg Asp Glu Ala Ile Ala Lys Lys Asn Ala Val Glu Leu Glu Leu Ala
 180 185 190
 Lys Cys Arg Met Asp Met Met Ser Leu Asn Ser Gln Leu Leu Asp Ala
 195 200 205
 Ile Gln Gln Lys Leu Asn Leu Ser Gln Gln Leu Glu Ala Trp Gln Asp
 210 215 220
 Asp Met His Arg Val Ile Asp Arg Gln Leu Met Asp Thr His Leu Lys
 225 230 235 240
 Glu Arg Ser Gln Pro Ala Ala Ala Leu Cys Arg Gly His Ser Ala Gly
 245 250 255
 Arg Gly Asp Glu Pro Ser Ile Ala Glu Gly Lys Arg Leu Phe Ser Phe
 260 265 270
 Phe Arg Lys Ile *
 275 276

<210> 1662
 <211> 2264
 <212> PRT

<213> Homo sapiens

<400> 1662

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Met Ala Val Trp Gln Leu Tyr Tyr Trp Arg Gly Gly Val Thr Val Ser
 1           5           10           15
Val Gly Gly Ser Arg Pro Gly Gln Thr Leu Arg Gly Ser Val Gln Asn
 20           25           30
Lys Leu Asn Pro Arg Pro Gly Lys Val Val Ile Tyr Ser Glu Pro Asp
 35           40           45
Val Ser Glu Lys Cys Ile Glu Val Phe Ser Asp Ile Gln Asp Cys Ser
 50           55           60
Ser Trp Ser Leu Ser Pro Val Ile Leu Ile Lys Val Val Arg Gly Cys
 65           70           75           80
Trp Ile Leu Tyr Glu Gln Pro Asn Phe Glu Gly His Ser Ile Pro Leu
 85           90           95
Glu Glu Gly Glu Leu Glu Leu Ser Gly Leu Trp Gly Ile Glu Asp Ile
100           105           110
Val Glu Arg His Glu Glu Ala Glu Ser Asp Lys Pro Val Val Ile Gly
115           120           125
Ser Ile Arg His Val Val Gln Asp Tyr Arg Val Ser His Ile Asp Leu
130           135           140
Phe Thr Glu Pro Glu Gly Leu Gly Ile Leu Ser Ser Tyr Phe Asp Asp
145           150           155           160
Thr Glu Glu Met Gln Gly Phe Gly Val Met Gln Lys Thr Cys Ser Met
165           170           175
Lys Val His Trp Gly Thr Trp Leu Ile Tyr Glu Glu Pro Gly Phe Gln
180           185           190
Gly Val Pro Phe Ile Leu Glu Pro Gly Glu Tyr Pro Asp Leu Ser Phe
195           200           205
Trp Asp Thr Glu Ala Ala Tyr Ile Gly Ser Met Arg Pro Leu Lys Met
210           215           220
Gly Gly Arg Lys Val Glu Phe Pro Thr Asp Pro Lys Ser Arg Ala Gln
225           230           235           240
Pro Pro Glu Asp Asn Arg Arg Lys Pro Val Leu Gly Lys Leu Gly Thr
245           250           255
Leu Phe Thr Ala Gly Arg Arg Arg Asn Ser Arg Asn Gly Leu Glu Ser
260           265           270
Pro Thr Arg Ser Asn Ala Lys Pro Leu Ser Pro Lys Asp Val Val Ala
275           280           285
Ser Pro Lys Leu Pro Glu Arg Glu Ser Glu Arg Ser Arg Ser Gln Ser
290           295           300
Ser Gln Leu Lys Gln Thr Asp Thr Ser Glu Glu Gly Ser Pro Arg Glu
305           310           315           320
Asn Pro Arg Glu Ala Glu Gly Glu Leu Pro Glu Ser Gly Gly Pro Ala
325           330           335
Ala Pro Pro Asp Ala Glu Leu Ser Pro Arg Trp Ser Ser Ser Ala Ala
340           345           350
Ala Val Ala Val Gln Gln Cys His Glu Asn Asp Ser Pro Gln Leu Glu
355           360           365
Pro Leu Glu Ala Glu Gly Glu Pro Phe Pro Asp Ala Thr Thr Thr Ala
370           375           380
Lys Gln Leu His Ser Ser Pro Gly Asn Ser Ser Arg Gln Glu Asn Ala
385           390           395           400
Glu Thr Pro Ala Arg Ser Pro Gly Glu Asp Ala Ser Pro Gly Ala Gly
405           410           415
His Glu Gln Glu Ala Phe Leu Gly Val Arg Gly Ala Pro Gly Ser Pro
420           425           430
Thr Gln Glu Arg Pro Ala Gly Gly Leu Gly Glu Ala Pro Asn Ala Ala
435           440           445
Pro Ser Val Cys Ala Glu Glu Gly Ser Leu Gly Pro Arg Asn Ala Arg
450           455           460
Ser Gln Pro Pro Lys Gly Ala Ser Asp Leu Pro Gly Glu Pro Pro Ala
465           470           475           480

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Glu	Gly	Ala	Ala	His	Thr	Ala	Ser	Ser	Ala	Gln	Ala	Asp	Cys	Thr	Ala	485	490	495
Arg	Pro	Lys	Gly	His	Ala	His	Pro	Ala	Lys	Val	Leu	Thr	Leu	Asp	Ile	500	505	510
Tyr	Leu	Ser	Lys	Thr	Glu	Gly	Ala	Gln	Val	Asp	Glu	Pro	Val	Val	Ile	515	520	525
Thr	Pro	Arg	Ala	Glu	Asp	Cys	Gly	Asp	Trp	Asp	Asp	Met	Glu	Lys	Arg	530	535	540
Ser	Ser	Gly	Arg	Arg	Ser	Gly	Arg	Arg	Arg	Gly	Ser	Gln	Lys	Ser	Thr	545	550	555
Asp	Ser	Pro	Gly	Ala	Asp	Ala	Glu	Leu	Pro	Glu	Ser	Ala	Ala	Arg	Asp	565	570	575
Asp	Ala	Val	Phe	Asp	Asp	Glu	Val	Ala	Pro	Asn	Ala	Ala	Ser	Asp	Asn	580	585	590
Ala	Ser	Ala	Glu	Lys	Lys	Val	Lys	Ser	Pro	Arg	Ala	Ala	Leu	Asp	Gly	595	600	605
Gly	Val	Ala	Ser	Ala	Ala	Ser	Pro	Glu	Ser	Lys	Pro	Ser	Pro	Gly	Thr	610	615	620
Lys	Gly	Gln	Leu	Arg	Gly	Glu	Ser	Asp	Arg	Ser	Lys	Gln	Pro	Pro	Pro	625	630	635
Ala	Ser	Ser	Pro	Thr	Lys	Arg	Lys	Gly	Arg	Ser	Arg	Ala	Leu	Glu	Ala	645	650	655
Val	Pro	Ala	Pro	Pro	Ala	Ser	Gly	Pro	Arg	Ala	Pro	Ala	Lys	Glu	Ser	660	665	670
Pro	Pro	Lys	Arg	Val	Pro	Asp	Pro	Ser	Pro	Val	Thr	Lys	Gly	Thr	Ala	675	680	685
Ala	Glu	Ser	Gly	Glu	Glu	Ala	Ala	Arg	Ala	Ile	Pro	Arg	Glu	Leu	Pro	690	695	700
Val	Lys	Ser	Ser	Ser	Leu	Leu	Pro	Glu	Ile	Lys	Pro	Glu	His	Lys	Arg	705	710	715
Gly	Pro	Leu	Pro	Asn	His	Phe	Asn	Gly	Arg	Ala	Glu	Gly	Gly	Arg	Ser	725	730	735
Arg	Glu	Leu	Gly	Arg	Ala	Ala	Gly	Ala	Pro	Gly	Ala	Ser	Asp	Ala	Asp	740	745	750
Gly	Leu	Lys	Pro	Arg	Asn	His	Phe	Gly	Val	Gly	Arg	Ser	Thr	Val	Thr	755	760	765
Thr	Lys	Val	Thr	Leu	Pro	Ala	Lys	Pro	Lys	His	Val	Glu	Leu	Asn	Leu	770	775	780
Lys	Thr	Pro	Lys	Asn	Leu	Asp	Ser	Leu	Gly	Asn	Glu	His	Asn	Pro	Phe	785	790	795
Ser	Gln	Pro	Val	His	Lys	Gly	Asn	Thr	Ala	Thr	Lys	Ile	Ser	Leu	Phe	805	810	815
Glu	Asn	Lys	Arg	Thr	Asn	Ser	Ser	Pro	Arg	His	Thr	Asp	Ile	Arg	Gly	820	825	830
Gln	Arg	Asn	Thr	Pro	Ala	Ser	Ser	Lys	Thr	Phe	Val	Gly	Arg	Ala	Lys	835	840	845
Leu	Asn	Leu	Ala	Lys	Lys	Ala	Lys	Glu	Met	Glu	Gln	Pro	Glu	Lys	Lys	850	855	860
Val	Met	Pro	Asn	Ser	Pro	Gln	Asn	Gly	Val	Leu	Val	Lys	Glu	Thr	Ala	865	870	875
Ile	Glu	Thr	Lys	Val	Thr	Val	Ser	Glu	Glu	Glu	Ile	Leu	Pro	Ala	Thr	885	890	895
Arg	Gly	Met	Asn	Gly	Asp	Ser	Ser	Glu	Asn	Gln	Ala	Leu	Gly	Pro	Gln	900	905	910
Pro	Asn	Gln	Asp	Asp	Lys	Ala	Asp	Val	Gln	Thr	Asp	Ala	Gly	Cys	Leu	915	920	925
Ser	Glu	Pro	Val	Ala	Ser	Ala	Leu	Ile	Pro	Val	Lys	Asp	His	Lys	Leu	930	935	940
Leu	Glu	Lys	Glu	Asp	Ser	Glu	Ala	Ala	Asp	Ser	Lys	Ser	Leu	Val	Leu	945	950	955
Glu	Asn	Val	Thr	Asp	Thr	Ala	Gln	Asp	Ile	Pro	Thr	Thr	Val	Asp	Thr	965	970	975
Lys	Asp	Leu	Pro	Pro	Thr	Ala	Met	Pro	Lys	Pro	Gln	His	Thr	Phe	Ser	980	985	990

Asp Ser Gln Ser Pro Ala Glu Ser Ser Pro Gly Pro Ser Leu Ser Leu
 995 1000 1005
 Ser Ala Pro Ala Pro Gly Asp Val Pro Lys Asp Thr Cys Val Gln Ser
 1010 1015 1020
 Pro Ile Ser Ser Phe Pro Cys Thr Asp Leu Lys Val Ser Glu Asn His
 1025 1030 1035 1040
 Lys Gly Cys Val Leu Pro Val Ser Arg Gln Asn Asn Glu Lys Met Pro
 1045 1050 1055
 Leu Leu Glu Leu Gly Gly Glu Thr Thr Pro Pro Leu Ser Thr Glu Arg
 1060 1065 1070
 Ser Pro Glu Ala Val Gly Ser Glu Cys Pro Ser Arg Val Leu Val Gln
 1075 1080 1085
 Val Arg Ser Phe Val Leu Pro Val Glu Ser Thr Gln Asp Val Ser Ser
 1090 1095 1100
 Gln Val Ile Pro Glu Ser Ser Glu Val Arg Glu Val Gln Leu Pro Thr
 1105 1110 1115 1120
 Cys His Ser Asn Glu Pro Glu Val Val Ser Val Ala Ser Cys Ala Pro
 1125 1130 1135
 Pro Gln Glu Glu Val Leu Gly Asn Glu His Ser His Cys Thr Ala Glu
 1140 1145 1150
 Leu Ala Ala Lys Ser Gly Pro Gln Val Ile Pro Pro Ala Ser Glu Lys
 1155 1160 1165
 Thr Leu Pro Ile Gln Ala Gln Ser Gln Gly Ser Arg Thr Pro Leu Met
 1170 1175 1180
 Ala Glu Ser Ser Pro Thr Asn Ser Pro Ser Ser Gly Asn His Leu Ala
 1185 1190 1195 1200
 Thr Pro Gln Arg Pro Asp Gln Thr Val Thr Asn Gly Gln Asp Ser Pro
 1205 1210 1215
 Ala Ser Leu Leu Asn Ile Ser Ala Gly Ser Asp Asp Ser Val Phe Asp
 1220 1225 1230
 Ser Ser Ser Asp Met Glu Lys Phe Thr Glu Ile Ile Lys Gln Met Asp
 1235 1240 1245
 Ser Ala Val Cys Met Pro Met Lys Arg Lys Lys Ala Arg Met Pro Asn
 1250 1255 1260
 Ser Pro Ala Pro His Phe Ala Met Pro Pro Ile His Glu Asp His Leu
 1265 1270 1275 1280
 Glu Lys Val Phe Asp Pro Lys Val Phe Thr Phe Gly Leu Gly Lys Lys
 1285 1290 1295
 Lys Glu Ser Gln Pro Glu Met Ser Pro Ala Leu His Leu Met Gln Asn
 1300 1305 1310
 Leu Asp Thr Lys Ser Lys Leu Arg Pro Lys Arg Ala Ser Ala Glu Gln
 1315 1320 1325
 Ser Val Leu Phe Lys Ser Leu His Thr Asn Thr Asn Gly Asn Ser Glu
 1330 1335 1340
 Pro Leu Val Met Pro Glu Ile Asn Asp Lys Glu Asn Arg Asp Val Thr
 1345 1350 1355 1360
 Asn Gly Gly Ile Lys Arg Ser Arg Leu Glu Lys Ser Ala Leu Phe Ser
 1365 1370 1375
 Ser Leu Leu Ser Ser Leu Pro Gln Asp Lys Ile Phe Ser Pro Ser Val
 1380 1385 1390
 Thr Ser Val Asn Thr Met Thr Thr Ala Phe Ser Thr Ser Gln Asn Gly
 1395 1400 1405
 Ser Leu Ser Gln Ser Ser Val Ser Gln Pro Thr Thr Glu Gly Ala Pro
 1410 1415 1420
 Pro Cys Gly Leu Asn Lys Glu Gln Ser Asn Leu Leu Pro Asp Asn Ser
 1425 1430 1435 1440
 Leu Lys Val Phe Asn Phe Asn Ser Ser Ser Thr Ser His Ser Ser Leu
 1445 1450 1455
 Lys Ser Pro Ser His Met Glu Lys Tyr Pro Gln Lys Glu Lys Thr Lys
 1460 1465 1470
 Glu Asp Leu Asp Ser Arg Ser Asn Leu His Leu Pro Glu Thr Lys Phe
 1475 1480 1485
 Ser Glu Leu Ser Lys Leu Lys Asn Asp Asp Met Glu Lys Ala Asn His
 1490 1495 1500

Ile Glu Ser Val Ile Lys Ser Asn Leu Pro Asn Cys Ala Asn Ser Asp
 1505 1510 1515 1520
 Thr Asp Phe Met Gly Leu Phe Lys Ser Ser Arg Tyr Asp Pro Ser Ile
 1525 1530 1535
 Ser Phe Ser Gly Met Ser Leu Ser Asp Thr Met Thr Leu Arg Gly Ser
 1540 1545 1550
 Val Gln Asn Lys Leu Asn Pro Arg Pro Gly Lys Val Val Ile Tyr Ser
 1555 1560 1565
 Glu Pro Asp Val Ser Glu Lys Cys Ile Glu Val Phe Ser Asp Ile Gln
 1570 1575 1580
 Asp Cys Ser Ser Trp Ser Leu Ser Pro Val Ile Leu Ile Lys Val Val
 1585 1590 1595 1600
 Arg Gly Cys Trp Ile Leu Tyr Glu Gln Pro Asn Phe Glu Gly His Ser
 1605 1610 1615
 Ile Pro Leu Glu Gly Glu Leu Glu Leu Ser Gly Leu Trp Gly Ile
 1620 1625 1630
 Glu Asp Ile Leu Glu Arg His Glu Glu Ala Glu Ser Asp Lys Pro Val
 1635 1640 1645
 Val Ile Gly Ser Ile Arg His Val Val Gln Asp Tyr Arg Val Ser His
 1650 1655 1660
 Ile Asp Leu Phe Thr Glu Pro Glu Gly Leu Gly Ile Leu Ser Ser Tyr
 1665 1670 1675 1680
 Phe Asp Asp Thr Glu Glu Met Gln Gly Phe Gly Val Met Gln Lys Thr
 1685 1690 1695
 Cys Ser Met Lys Val His Trp Gly Thr Trp Leu Ile Tyr Glu Glu Pro
 1700 1705 1710
 Gly Phe Gln Gly Val Pro Phe Ile Leu Glu Pro Gly Glu Tyr Pro Asp
 1715 1720 1725
 Leu Ser Phe Trp Asp Thr Glu Ala Ala Tyr Ile Gly Ser Met Arg Pro
 1730 1735 1740
 Leu Lys Met Gly Gly Arg Lys Val Glu Phe Pro Thr Asp Pro Lys Val
 1745 1750 1755 1760
 Val Val Tyr Glu Lys Pro Phe Phe Glu Gly Lys Cys Val Glu Leu Glu
 1765 1770 1775
 Thr Gly Met Cys Ser Phe Val Met Glu Gly Gly Glu Thr Glu Glu Ala
 1780 1785 1790
 Thr Gly Asp Asp His Leu Pro Phe Thr Ser Val Gly Ser Met Lys Val
 1795 1800 1805
 Leu Arg Gly Ile Trp Val Ala Tyr Glu Lys Pro Gly Phe Thr Gly His
 1810 1815 1820
 Gln Tyr Leu Leu Glu Glu Gly Glu Tyr Arg Asp Trp Lys Ala Trp Gly
 1825 1830 1835 1840
 Gly Tyr Asn Gly Glu Leu Gln Ser Leu Arg Pro Ile Leu Gly Asp Phe
 1845 1850 1855
 Ser Asn Ala His Met Ile Met Tyr Ser Glu Lys Asn Phe Gly Ser Lys
 1860 1865 1870
 Gly Ser Ser Ile Asp Val Leu Gly Ile Val Ala Asn Leu Lys Glu Thr
 1875 1880 1885
 Gly Tyr Gly Val Lys Thr Gln Ser Ile Asn Val Leu Ser Gly Val Trp
 1890 1895 1900
 Val Ala Tyr Glu Asn Pro Asp Phe Thr Gly Glu Gln Tyr Ile Leu Asp
 1905 1910 1915 1920
 Lys Gly Phe Tyr Thr Ser Phe Glu Asp Trp Gly Gly Lys Asn Tyr Lys
 1925 1930 1935
 Ile Ser Ser Val Gln Pro Ile Cys Leu Asp Ser Phe Thr Gly Pro Arg
 1940 1945 1950
 Arg Arg Asn Gln Ile His Leu Phe Ser Glu Pro Gln Phe Gln Gly His
 1955 1960 1965
 Ser Gln Ser Phe Glu Glu Thr Thr Ser Gln Ile Asp Asp Ser Phe Ser
 1970 1975 1980
 Thr Lys Ser Cys Arg Val Ser Gly Gly Ser Trp Val Val Tyr Asp Gly
 1985 1990 1995 2000
 Glu Asn Phe Thr Gly Asn Gln Tyr Val Leu Glu Glu Gly His Tyr Pro
 2005 2010 2015

Cys Leu Ser Ala Met Gly Cys Pro Pro Gly Ala Thr Phe Lys Ser Leu
 2020 2025 2030
 Arg Phe Ile Asp Val Glu Phe Ser Glu Pro Thr Ile Ile Leu Phe Glu
 2035 2040 2045
 Arg Glu Asp Phe Lys Gly Lys Lys Ile Glu Leu Asn Ala Glu Thr Val
 2050 2055 2060
 Asn Leu Arg Ser Leu Gly Phe Asn Thr Gln Ile Arg Ser Val Gln Val
 2065 2070 2075 2080
 Ile Gly Gly Ile Trp Val Thr Tyr Glu Tyr Gly Ser Tyr Arg Gly Arg
 2085 2090 2095
 Gln Phe Leu Leu Ser Pro Ala Glu Val Pro Asn Trp Tyr Glu Phe Ser
 2100 2105 2110
 Gly Cys Arg Gln Ile Gly Ser Leu Arg Pro Phe Val Gln Lys Arg Ile
 2115 2120 2125
 Tyr Phe Arg Leu Arg Asn Lys Ala Thr Gly Leu Phe Met Ser Thr Asn
 2130 2135 2140
 Gly Asn Leu Glu Asp Leu Lys Leu Leu Arg Ile Gln Val Met Glu Asp
 2145 2150 2155 2160
 Val Gly Ala Asp Asp Gln Ile Trp Ile Tyr Gln Glu Gly Cys Ile Lys
 2165 2170 2175
 Cys Arg Ile Ala Glu Asp Cys Cys Leu Thr Ile Val Gly Ser Leu Val
 2180 2185 2190
 Thr Ser Gly Ser Lys Leu Gly Leu Ala Leu Asp Gln Asn Ala Asp Ser
 2195 2200 2205
 Gln Phe Trp Ser Leu Lys Ser Asp Gly Arg Ile Tyr Ser Lys Leu Lys
 2210 2215 2220
 Pro Asn Leu Val Leu Asp Ile Lys Gly Gly Thr Gln Tyr Asp Gln Asn
 2225 2230 2235 2240
 His Ile Ile Leu Asn Thr Val Ser Lys Glu Lys Phe Thr Gln Val Trp
 2245 2250 2255
 Glu Ala Met Val Leu Tyr Thr *
 2260 2263

<210> 1663
 <211> 418
 <212> PRT
 <213> Homo sapiens

<400> 1663
 Met Gly Arg Arg Arg Ala Pro Glu Leu Tyr Arg Ala Pro Phe Pro Leu
 1 5 10 15
 Tyr Ala Leu Gln Val Asp Pro Ser Thr Gly Leu Leu Ile Ala Ala Gly
 20 25 30
 Gly Gly Gly Ala Ala Lys Thr Gly Ile Lys Asn Gly Val His Phe Leu
 35 40 45
 Gln Leu Glu Leu Ile Asn Gly Arg Leu Ser Ala Ser Leu Leu His Ser
 50 55 60
 His Asp Thr Glu Thr Arg Ala Thr Met Asn Leu Ala Leu Ala Gly Asp
 65 70 75 80
 Ile Leu Ala Ala Gly Gln Asp Ala His Cys Gln Leu Leu Arg Phe Gln
 85 90 95
 Ala His Gln Gln Gln Gly Asn Lys Ala Glu Lys Ala Gly Ser Lys Glu
 100 105 110
 Gln Gly Pro Arg Gln Arg Lys Gly Ala Ala Pro Ala Glu Lys Lys Cys
 115 120 125
 Gly Ala Glu Thr Gln His Glu Gly Leu Glu Leu Arg Val Glu Asn Leu
 130 135 140
 Gln Ala Val Gln Thr Asp Phe Ser Ser Asp Pro Leu Gln Lys Val Val
 145 150 155 160
 Cys Phe Asn His Asp Asn Thr Leu Leu Ala Thr Gly Gly Thr Asp Gly
 165 170 175

Tyr Val Arg Val Trp Lys Val Pro Ser Leu Glu Lys Val Leu Glu Phe
 180 185 190
 Lys Ala His Glu Gly Glu Ile Glu Asp Leu Ala Leu Gly Pro Asp Gly
 195 200 205
 Lys Leu Val Thr Val Gly Arg Asp Leu Lys Ala Ser Val Trp Gln Lys
 210 215 220
 Asp Gln Leu Val Thr Gln Leu His Trp Gln Glu Asn Gly Pro Thr Phe
 225 230 235 240
 Ser Ser Thr Pro Tyr Arg Tyr Gln Ala Cys Arg Phe Gly Gln Val Pro
 245 250 255
 Asp Gln Pro Ala Gly Leu Arg Leu Phe Thr Val Gln Ile Pro His Lys
 260 265 270
 Arg Leu Arg Gln Pro Pro Pro Cys Tyr Leu Thr Ala Trp Asp Gly Ser
 275 280 285
 Asn Phe Leu Pro Leu Arg Thr Lys Ser Cys Gly His Glu Val Val Ser
 290 295 300
 Cys Leu Asp Val Ser Glu Ser Gly Thr Phe Leu Gly Leu Gly Thr Val
 305 310 315 320
 Thr Gly Ser Val Ala Ile Tyr Ile Ala Phe Ser Leu Gln Cys Leu Tyr
 325 330 335
 Tyr Val Arg Glu Ala His Gly Ile Val Val Thr Asp Val Ala Phe Leu
 340 345 350
 Pro Glu Lys Gly Arg Gly Pro Glu Leu Leu Gly Ser His Glu Thr Ala
 355 360 365
 Leu Phe Ser Val Ala Val Asp Ser Arg Cys Gln Leu His Leu Leu Pro
 370 375 380
 Ser Arg Arg Ser Val Pro Val Trp Leu Leu Leu Leu Leu Cys Val Gly
 385 390 395 400
 Leu Ile Ile Val Thr Ile Leu Leu Leu Gln Ser Ala Phe Pro Gly Phe
 405 410 415
 Leu *
 417

<210> 1664
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 1664
 Met Thr His Cys Cys Ser Pro Cys Cys Gln Pro Thr Cys Cys Arg Thr
 1 5 10 15
 Thr Cys Cys Arg Thr Thr Cys Trp Lys Pro Thr Thr Val Thr Thr Cys
 20 25 30
 Ser Ser Thr Pro Cys Cys Gln Pro Ser Cys Cys Val Pro Ser Cys Cys
 35 40 45
 Gln Pro Cys Cys His Pro Thr Cys Cys Gln Asn Thr Cys Cys Arg Thr
 50 55 60
 Thr Cys Cys Gln Pro Thr Cys Val Ala Ser Cys Cys Gln Pro Ser Cys
 65 70 75 80
 Cys Ser Thr Pro Cys Cys Gln Pro Thr Cys Cys Gly Ser Ser Cys Cys
 85 90 95
 Gly Gln Thr Ser Cys Gly Ser Ser Cys Cys Gln Pro Ile Cys Gly Ser
 100 105 110
 Ser Cys Cys Gln Pro Cys Cys His Pro Thr Cys Tyr Gln Thr Ile Cys
 115 120 125
 Phe Arg Thr Thr Cys Cys Gln Pro Thr Cys Cys Gln Pro Thr Cys Cys
 130 135 140
 Arg Asn Thr Ser Cys Gln Pro Thr Cys Cys Gly Ser Ser Cys Cys Gln
 145 150 155 160
 Pro Cys Cys His Pro Thr Cys Cys Gln Thr Ile Cys Arg Ser Thr Cys
 165 170 175

Cys	Gln	Pro	Ser	Cys	Val	Thr	Arg	Cys	Cys	Ser	Thr	Pro	Cys	Cys	Gln
			180					185					190		
Pro	Thr	Cys	Gly	Gly	Ser	Ser	Cys	Cys	Ser	Gln	Thr	Cys	Asn	Glu	Ser
		195					200					205			
Ser	Tyr	Cys	Leu	Pro	Cys	Cys	Arg	Pro	Thr	Cys	Cys	Gln	Thr	Thr	Cys
	210					215					220				
Tyr	Arg	Thr	Thr	Cys	Cys	Arg	Pro	Ser	Cys	Cys	Cys	Ser	Pro	Cys	Cys
	225				230					235					240
Val	Ser	Ser	Cys	Cys	Gln	Pro	Ser	Cys	Cys	*					
			245						250						

<210> 1665

<211> 737

<212> PRT

<213> Homo sapiens

<400> 1665

Met	Arg	Glu	Leu	Lys	Arg	Thr	Leu	Asp	Ala	Lys	Gly	His	Gly	Val	Leu
1				5					10					15	
Glu	Met	Pro	Ser	Gly	Thr	Gly	Lys	Thr	Val	Ser	Leu	Leu	Ala	Leu	Ile
		20					25					30			
Met	Ala	Tyr	Gln	Arg	Ala	Tyr	Pro	Leu	Glu	Val	Thr	Lys	Leu	Ile	Tyr
	35					40					45				
Cys	Ser	Arg	Thr	Val	Pro	Glu	Ile	Glu	Lys	Val	Ile	Glu	Glu	Leu	Arg
	50					55				60					
Lys	Leu	Leu	Asn	Phe	Tyr	Glu	Lys	Gln	Glu	Gly	Glu	Lys	Leu	Pro	Phe
	65			70					75					80	
Leu	Gly	Leu	Ala	Leu	Ser	Ser	Arg	Lys	Asn	Leu	Cys	Ile	His	Pro	Glu
			85					90						95	
Val	Thr	Pro	Leu	Arg	Phe	Gly	Lys	Asp	Val	Asp	Gly	Lys	Cys	His	Ser
		100					105						110		
Leu	Thr	Ala	Ser	Tyr	Val	Arg	Ala	Gln	Tyr	Gln	His	Asp	Thr	Ser	Leu
	115					120					125				
Pro	His	Cys	Arg	Phe	Tyr	Glu	Phe	Asp	Ala	His	Gly	Arg	Glu	Val	
	130					135				140					
Pro	Leu	Pro	Ala	Gly	Ile	Tyr	Asn	Leu	Asp	Asp	Leu	Lys	Ala	Leu	Gly
	145				150				155					160	
Arg	Arg	Gln	Gly	Trp	Cys	Pro	Tyr	Phe	Leu	Ala	Arg	Tyr	Ser	Ile	Leu
			165					170						175	
His	Ala	Asn	Val	Val	Tyr	Ser	Tyr	His	Tyr	Leu	Leu	Asp	Pro	Lys	
		180					185					190			
Ile	Ala	Asp	Leu	Val	Ser	Lys	Glu	Leu	Ala	Arg	Lys	Ala	Val	Val	Val
	195						200				205				
Phe	Asp	Glu	Ala	His	Asn	Ile	Asp	Asn	Val	Cys	Ile	Asp	Ser	Met	Ser
	210				215					220					
Val	Asn	Leu	Thr	Arg	Arg	Thr	Leu	Asp	Arg	Cys	Gln	Gly	Asn	Leu	Glu
	225				230					235				240	
Thr	Leu	Gln	Lys	Thr	Val	Leu	Arg	Ile	Lys	Glu	Thr	Asp	Glu	Gln	Arg
			245						250					255	
Leu	Arg	Asp	Glu	Tyr	Arg	Arg	Leu	Val	Glu	Gly	Leu	Arg	Glu	Ala	Ser
		260						265					270		
Ala	Ala	Arg	Glu	Thr	Asp	Ala	His	Leu	Ala	Asn	Pro	Val	Leu	Pro	Asp
	275					280					285				
Glu	Val	Leu	Gln	Glu	Ala	Val	Pro	Gly	Ser	Ile	Arg	Thr	Ala	Glu	His
	290					295					300				
Phe	Leu	Gly	Phe	Leu	Arg	Arg	Leu	Leu	Glu	Tyr	Val	Lys	Trp	Arg	Leu
	305				310				315					320	
Arg	Val	Gln	His	Val	Val	Gln	Glu	Ser	Pro	Pro	Ala	Phe	Leu	Ser	Gly
			325					330						335	
Leu	Ala	Gln	Arg	Val	Cys	Ile	Gln	Arg	Lys	Pro	Leu	Arg	Phe	Cys	Ala
			340					345					350		

Glu Arg Leu Arg Ser Leu Leu His Thr Leu Glu Ile Thr Asp Leu Ala
 355 360 365
 Asp Phe Ser Pro Leu Thr Leu Leu Ala Asn Phe Ala Thr Leu Val Ser
 370 375 380
 Thr Tyr Ala Lys Gly Phe Thr Ile Ile Ile Glu Pro Phe Asp Asp Arg
 385 390 395 400
 Thr Pro Thr Ile Ala Asn Pro Ile Leu His Phe Ser Cys Met Asp Ala
 405 410 415
 Ser Leu Ala Ile Lys Pro Val Phe Glu Arg Phe Gln Ser Val Ile Ile
 420 425 430
 Thr Ser Gly Thr Leu Ser Pro Leu Asp Ile Tyr Pro Lys Ile Leu Asp
 435 440 445
 Phe His Pro Val Thr Met Ala Thr Phe Thr Met Thr Leu Ala Arg Val
 450 455 460
 Cys Leu Cys Pro Met Ile Ile Gly Arg Gly Asn Asp Gln Val Ala Ile
 465 470 475 480
 Ser Ser Lys Phe Glu Thr Arg Glu Asp Ile Ala Val Ile Arg Asn Tyr
 485 490 495
 Gly Asn Leu Leu Leu Glu Met Ser Ala Val Val Pro Asp Gly Ile Val
 500 505 510
 Ala Phe Phe Thr Ser Tyr Gln Tyr Met Glu Ser Thr Val Ala Ser Trp
 515 520 525
 Tyr Glu Gln Gly Ile Leu Glu Asn Ile Gln Arg Asn Lys Leu Leu Phe
 530 535 540
 Ile Glu Thr Gln Asp Gly Ala Glu Thr Ser Val Ala Leu Glu Lys Tyr
 545 550 555 560
 Gln Glu Ala Cys Glu Asn Gly Arg Gly Ala Ile Leu Leu Ser Val Ala
 565 570 575
 Arg Gly Lys Val Ser Glu Gly Ile Asp Phe Val His His Tyr Gly Arg
 580 585 590
 Ala Val Ile Met Phe Gly Val Pro Tyr Val Tyr Thr Gln Ser Arg Ile
 595 600 605
 Leu Lys Ala Arg Leu Glu Tyr Leu Arg Asp Gln Phe Gln Ile Arg Glu
 610 615 620
 Asn Asp Phe Leu Thr Phe Asp Ala Met Arg His Ala Ala Gln Cys Val
 625 630 635 640
 Gly Arg Ala Ile Arg Gly Lys Thr Asp Tyr Gly Leu Met Val Phe Ala
 645 650 655
 Asp Lys Arg Phe Ala Arg Gly Asp Lys Arg Gly Lys Leu Pro Arg Trp
 660 665 670
 Ile Gln Glu His Leu Thr Asp Ala Asn Leu Asn Leu Thr Val Asp Glu
 675 680 685
 Gly Val Gln Val Ala Lys Tyr Phe Leu Arg Gln Met Ala Gln Pro Phe
 690 695 700
 His Arg Glu Asp Gln Leu Gly Leu Ser Leu Leu Ser Leu Glu Gln Leu
 705 710 715 720
 Glu Ser Glu Glu Thr Leu Lys Arg Ile Glu Gln Ile Ala Gln Gln Leu
 725 730 735 736

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<210> 1666
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 1666
 Met Ser Ser Lys Thr Ala Ser Thr Asn Asn Ile Ala Gln Ala Arg Arg
 1 5 10 15
 Thr Val Gln Gln Leu Arg Leu Glu Ala Ser Ile Glu Arg Ile Lys Val
 20 25 30

Ser Lys Ala Ser Ala Asp Leu Met Ser Tyr Cys Glu Glu His Ala Arg
 35 40 45
 Ser Asp Pro Leu Leu Ile Gly Ile Pro Thr Ser Glu Asn Pro Phe Lys
 50 55 60
 Asp Lys Lys Thr Cys Ile Ile Leu *
 65 70 72

<210> 1667
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 1667
 Met Gly Arg Arg Lys Ser Lys Arg Lys Pro Pro Pro Lys Lys Lys Met
 1 5 10 15
 Thr Gly Thr Leu Glu Thr Gln Phe Thr Cys Pro Phe Cys Asn His Glu
 20 25 30
 Lys Ser Cys Asp Val Lys Met Asp Arg Ala Arg Asn Thr Gly Val Ile
 35 40 45
 Ser Cys Thr Val Cys Leu Glu Glu Phe Gln Thr Pro Ile Thr Cys Ile
 50 55 60
 Leu Gly Asn Leu Gly Phe Phe Gln Arg Val Gly Arg Gly Leu Glu Ser
 65 70 75 80
 Gly Pro Cys Ser Ser Gly Pro Leu Cys Ala Leu Val Gln Gly Gln Ser
 85 90 95
 Arg Pro Glu Glu Gln Val Pro Pro Ser Asp Phe Cys Gly Val Arg Arg
 100 105 110
 Cys Arg Ala Gly Phe Gln Cys Gln *
 115 120

<210> 1668
 <211> 62
 <212> PRT
 <213> Homo sapiens

<400> 1668
 Met Lys Arg Phe Leu Phe Leu Leu Thr Ile Ser Leu Leu Val Met
 1 5 10 15
 Val Gln Ile Gln Thr Gly Leu Ser Gly Gln Asn Asp Thr Ser Gln Thr
 20 25 30
 Ser Ser Pro Ser Ala Ser Ser Ser Met Ser Gly Gly Ile Phe Leu Phe
 35 40 45
 Phe Val Ala Asn Ala Ile Ile His Leu Phe Cys Phe Ser *
 50 55 60 61

<210> 1669
 <211> 371
 <212> PRT
 <213> Homo sapiens

<400> 1669
 Met Glu Ile Leu Met Thr Val Ser Lys Phe Ala Ser Ile Cys Thr Met
 1 5 10 15
 Gly Ala Asn Ala Ser Ala Leu Glu Lys Glu Ile Gly Pro Glu Gln Phe
 20 25 30

Pro Val Asn Glu His Tyr Phe Gly Leu Val Asn Phe Gly Asn Thr Cys
 35 40 45
 Tyr Cys Asn Ser Val Leu Gln Ala Leu Tyr Phe Cys Arg Pro Phe Arg
 50 55 60
 Glu Lys Val Leu Ala Tyr Lys Ser Gln Pro Arg Lys Lys Glu Ser Leu
 65 70 75 80
 Leu Thr Cys Leu Ala Asp Leu Phe His Ser Ile Ala Thr Gln Lys Lys
 85 90 95
 Lys Val Gly Val Ile Pro Pro Lys Lys Phe Ile Thr Arg Leu Arg Lys
 100 105 110
 Glu Asn Glu Leu Phe Asp Asn Tyr Met Gln Gln Asp Ala His Glu Phe
 115 120 125
 Leu Asn Tyr Leu Leu Asn Thr Ile Ala Asp Ile Leu Gln Glu Glu Arg
 130 135 140
 Lys Gln Glu Lys Gln Asn Gly Arg Leu Pro Asn Gly Asn Ile Asp Asn
 145 150 155 160
 Glu Asn Asn Asn Ser Thr Pro Asp Pro Thr Trp Val His Glu Ile Phe
 165 170 175
 Gln Gly Thr Leu Thr Asn Glu Thr Arg Cys Leu Thr Cys Glu Thr Ile
 180 185 190
 Ser Ser Lys Asp Glu Asp Phe Leu Asp Leu Ser Val Asp Val Glu Gln
 195 200 205
 Asn Thr Ser Ile Thr His Cys Lys Arg Gly Phe Ser Asn Thr Glu Thr
 210 215 220
 Leu Cys Ser Glu Tyr Lys Tyr Tyr Cys Glu Glu Cys Arg Ser Lys Gln
 225 230 235 240
 Glu Ala His Lys Arg Met Lys Val Lys Lys Leu Pro Met Ile Leu Ala
 245 250 255
 Leu His Leu Lys Arg Phe Lys Tyr Met Asp Gln Leu His Arg Tyr Thr
 260 265 270
 Lys Leu Ser Tyr Arg Val Val Phe Pro Leu Glu Leu Arg Leu Phe Asn
 275 280 285
 Thr Ser Gly Asp Ala Thr Asn Pro Asp Arg Met Tyr Asp Leu Val Ala
 290 295 300
 Val Val Val His Cys Gly Ser Gly Pro Asn Arg Gly His Tyr Ile Ala
 305 310 315 320
 Ile Val Lys Ser His Asp Phe Trp Leu Leu Phe Asp Asp Asp Ile Val
 325 330 335
 Glu Lys Ile Asp Ala Gln Ala Ile Glu Glu Phe Tyr Gly Leu Thr Ser
 340 345 350
 Asp Ile Ser Lys Asn Ser Glu Ser Gly Tyr Ile Leu Phe Tyr Gln Ser
 355 360 365
 Arg Asp *
 370

<210> 1670

<211> 185

<212> PRT

<213> Homo sapiens

<400> 1670

Met Lys Pro Asp Glu Thr Pro Met Phe Asp Pro Asn Leu Leu Lys Glu
 1 5 10 15
 Val Asp Trp Ser Gln Asn Thr Ala Thr Phe Ser Pro Ala Ile Ser Pro
 20 25 30
 Thr His Pro Gly Glu Gly Leu Val Leu Arg Pro Leu Cys Thr Ala Asp
 35 40 45
 Leu Asn Arg Gly Phe Phe Lys Val Leu Gly Gln Leu Thr Glu Thr Gly
 50 55 60
 Val Val Ser Pro Glu Gln Phe Met Lys Ser Phe Glu His Met Lys Lys
 65 70 75 80

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Ser Gly Asp Tyr Tyr Val Thr Val Val Glu Asp Val Thr Leu Gly Gln
      85                      90                      95
Ile Val Ala Thr Ala Thr Leu Ile Ile Glu His Lys Phe Ile His Ser
      100                    105                    110
Cys Ala Lys Arg Gly Arg Val Glu Asp Val Val Ala Ser Asp Glu Cys
      115                    120                    125
Arg Gly Lys Gln Leu Gly Asn Leu Leu Leu Ser Thr Leu Thr Leu Leu
      130                    135                    140
Ser Lys Lys Leu Asn Cys Tyr Lys Ile Thr Leu Glu Cys Leu Pro Gln
      145                    150                    155                    160
Asn Val Gly Phe Tyr Lys Lys Phe Gly Tyr Thr Val Ser Glu Glu Asn
      165                    170                    175
Tyr Met Cys Arg Arg Phe Leu Lys *
      180                    184

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<210> 1671
<211> 360
<212> PRT
<213> Homo sapiens

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<400> 1671
Met Lys Ser Pro Phe Tyr Arg Cys Gln Asn Thr Thr Ser Val Glu Lys
  1      5      10      15
Gly Asn Ser Ala Val Met Gly Gly Val Leu Phe Ser Thr Gly Leu Leu
      20      25      30
Gly Asn Leu Leu Ala Leu Gly Leu Leu Ala Arg Ser Gly Leu Gly Trp
      35      40      45
Cys Ser Arg Arg Pro Leu Arg Pro Leu Pro Ser Val Phe Tyr Met Leu
      50      55      60
Val Cys Gly Leu Thr Val Thr Asp Leu Leu Gly Lys Cys Leu Leu Ser
      65      70      75      80
Pro Val Val Leu Ala Ala Tyr Ala Gln Asn Arg Ser Leu Arg Val Leu
      85      90      95
Ala Pro Ala Leu Asp Asn Ser Leu Cys Gln Ala Phe Ala Phe Phe Met
      100      105      110
Ser Phe Phe Gly Leu Ser Ser Thr Leu Gln Leu Leu Ala Met Ala Leu
      115      120      125
Glu Cys Trp Leu Ser Leu Gly His Pro Phe Phe Tyr Arg Arg His Ile
      130      135      140
Thr Leu Arg Leu Gly Ala Leu Val Ala Pro Val Val Ser Ala Phe Ser
      145      150      155      160
Leu Ala Phe Cys Ala Leu Pro Phe Met Gly Phe Gly Lys Phe Val Gln
      165      170      175
Tyr Cys Pro Gly Thr Trp Cys Phe Ile Gln Met Val His Glu Glu Gly
      180      185      190
Ser Leu Ser Val Leu Gly Tyr Ser Val Leu Tyr Ser Ser Leu Met Ala
      195      200      205
Leu Leu Val Leu Ala Thr Val Leu Cys Asn Leu Gly Ala Met Arg Asn
      210      215      220
Leu Tyr Ala Met His Arg Arg Leu Gln Arg His Pro Arg Ser Cys Thr
      225      230      235      240
Arg Asp Cys Ala Glu Pro Arg Ala Asp Gly Arg Glu Ala Ser Pro Gln
      245      250      255
Pro Leu Glu Glu Leu Asp His Leu Leu Leu Ala Leu Met Thr Val
      260      265      270
Leu Phe Thr Met Cys Ser Leu Pro Val Ile Tyr Arg Ala Tyr Tyr Gly
      275      280      285
Ala Phe Lys Asp Val Lys Glu Lys Asn Arg Thr Ser Glu Glu Ala Glu
      290      295      300
Asp Leu Arg Ala Leu Arg Phe Leu Ser Val Ile Ser Ile Val Asp Pro
      305      310      315      320

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Trp Ile Phe Ile Ile Phe Arg Ser Pro Val Phe Arg Ile Phe Phe His
 325 330 335
 Lys Ile Phe Ile Arg Pro Leu Arg Tyr Arg Ser Arg Cys Ser Asn Ser
 340 345 350
 Thr Asn Met Glu Ser Ser Leu *
 355 359

<210> 1672
 <211> 242
 <212> PRT
 <213> Homo sapiens

<400> 1672
 Met Phe Leu Thr Arg Ser Glu Tyr Asp Arg Gly Val Asn Thr Phe Ser
 1 5 10 15
 Pro Glu Gly Arg Leu Phe Gln Val Glu Tyr Ala Ile Glu Ala Ile Lys
 20 25 30
 Leu Gly Ser Thr Ala Ile Gly Ile Gln Thr Ser Glu Gly Val Cys Leu
 35 40 45
 Ala Val Glu Lys Arg Ile Thr Ser Pro Leu Met Glu Pro Ser Ser Ile
 50 55 60
 Glu Lys Ile Val Glu Ile Asp Ala His Ile Gly Cys Ala Met Ser Gly
 65 70 75 80
 Leu Ile Ala Asp Ala Lys Thr Leu Ile Asp Lys Ala Arg Val Glu Thr
 85 90 95
 Gln Asn His Trp Phe Thr Tyr Asn Glu Thr Met Thr Val Glu Ser Val
 100 105 110
 Thr Gln Ala Val Ser Asn Leu Ala Leu Gln Phe Gly Glu Glu Asp Ala
 115 120 125
 Asp Pro Gly Ala Met Ser Arg Pro Phe Gly Val Ala Leu Leu Phe Gly
 130 135 140
 Gly Val Asp Glu Lys Gly Pro Gln Leu Phe His Met Asp Pro Ser Gly
 145 150 155 160
 Thr Phe Val Gln Cys Asp Ala Arg Ala Ile Gly Ser Ala Ser Glu Gly
 165 170 175
 Ala Gln Ser Ser Leu Gln Glu Val Tyr His Lys Ser Met Thr Leu Lys
 180 185 190
 Glu Ala Ile Lys Ser Ser Leu Ile Leu Lys Gln Val Met Glu Glu
 195 200 205
 Lys Leu Asn Ala Thr Asn Ile Glu Leu Ala Thr Val Gln Pro Gly Gln
 210 215 220
 Asn Phe His Met Phe Thr Lys Glu Glu Leu Glu Glu Val Ile Lys Asp
 225 230 235 240
 Ile *
 241

<210> 1673
 <211> 399
 <212> PRT
 <213> Homo sapiens

<400> 1673
 Met Leu Gly Arg Ser Gly Tyr Arg Ala Leu Pro Leu Gly Asp Phe Asp
 1 5 10 15
 Arg Phe Gln Gln Ser Ser Phe Gly Phe Leu Gly Ser Gln Lys Gly Cys
 20 25 30
 Leu Ser Pro Glu Arg Gly Gly Val Gly Thr Gly Ala Asp Val Pro Gln
 35 40 45

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Ser Trp Pro Ser Cys Leu Cys His Gly Leu Ile Ser Phe Leu Gly Phe
  50                      55                      60
Leu Leu Leu Leu Val Thr Phe Pro Ile Ser Gly Trp Phe Ala Leu Lys
  65                      70                      75                      80
Ile Val Pro Thr Tyr Glu Arg Met Ile Val Phe Arg Leu Gly Arg Ile
                      85                      90                      95
Arg Thr Pro Gln Gly Pro Gly Met Val Leu Leu Leu Pro Phe Ile Asp
                      100                      105                      110
Ser Phe Gln Arg Val Asp Leu Arg Thr Arg Ala Phe Asn Val Pro Pro
                      115                      120                      125
Cys Lys Leu Ala Ser Lys Asp Gly Ala Val Leu Ser Val Gly Ala Asp
                      130                      135                      140
Val Gln Phe Arg Ile Trp Asp Pro Val Leu Ser Val Met Thr Val Lys
                      145                      150                      155                      160
Asp Leu Asn Thr Ala Thr Arg Met Thr Ala Gln Asn Ala Met Thr Lys
                      165                      170                      175
Ala Leu Leu Lys Arg Pro Leu Arg Glu Ile Gln Met Glu Lys Leu Lys
                      180                      185                      190
Ile Ser Asp Gln Leu Leu Leu Glu Ile Asn Asp Val Thr Arg Ala Trp
                      195                      200                      205
Gly Leu Glu Val Asp Arg Val Glu Leu Ala Val Glu Ala Val Leu Gln
                      210                      215                      220
Pro Pro Gln Asp Ser Pro Ala Gly Pro Asn Leu Asp Ser Thr Leu Gln
                      225                      230                      235                      240
Gln Leu Ala Leu His Phe Leu Gly Gly Ser Met Asn Ser Met Ala Gly
                      245                      250                      255
Gly Ala Pro Ser Pro Gly Pro Ala Asp Thr Val Glu Met Val Ser Glu
                      260                      265                      270
Val Glu Pro Pro Ala Pro Gln Val Gly Ala Arg Ser Ser Pro Lys Gln
                      275                      280                      285
Pro Leu Ala Glu Gly Leu Leu Thr Ala Leu Gln Pro Phe Leu Ser Glu
                      290                      295                      300
Ala Leu Val Ser Gln Val Gly Ala Cys Tyr Gln Phe Asn Val Val Leu
                      305                      310                      315                      320
Pro Ser Gly Thr Gln Ser Ala Tyr Phe Leu Asp Leu Thr Thr Gly Arg
                      325                      330                      335
Gly Arg Val Gly His Gly Val Pro Asp Gly Ile Pro Asp Val Val Val
                      340                      345                      350
Glu Met Ala Glu Ala Asp Leu Arg Ala Leu Leu Cys Arg Glu Leu Arg
                      355                      360                      365
Pro Leu Gly Ala Tyr Met Ser Gly Arg Leu Lys Val Lys Gly Asp Leu
                      370                      375                      380
Ala Met Ala Met Lys Leu Glu Ala Val Leu Arg Ala Leu Lys *
                      385                      390                      395                      398

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<210> 1674

<211> 122

<212> PRT

<213> Homo sapiens

<400> 1674

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Met Ala Thr Glu Gly Asp Val Glu Leu Glu Leu Glu Thr Glu Thr Ser
  1                      5                      10                      15
Gly Pro Glu Arg Pro Pro Glu Lys Pro Arg Lys His Asp Ser Gly Ala
                      20                      25                      30
Ala Asp Leu Glu Arg Val Thr Asp Tyr Ala Glu Glu Lys Glu Ile Gln
                      35                      40                      45
Ser Ser Asn Leu Glu Thr Ala Met Ser Val Ile Gly Asp Arg Arg Ser
                      50                      55                      60
Arg Glu Gln Lys Ala Lys Gln Glu Arg Glu Lys Glu Leu Ala Lys Val
                      65                      70                      75                      80

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Thr Ile Lys Lys Glu Asp Leu Glu Leu Ile Met Thr Glu Met Glu Ile
 85 90 95
 Ser Arg Ala Ala Ala Glu Arg Ser Leu Arg Glu His Met Gly Asn Val
 100 105 110
 Val Glu Ala Leu Ile Ala Leu Thr Asn *
 115 120 121

<210> 1675
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 1675
 Met Glu Ala Val Val Phe Val Phe Ser Leu Leu Asp Cys Cys Ala Leu
 1 5 10 15
 Ile Phe Leu Ser Val Tyr Phe Ile Ile Thr Leu Ser Asp Leu Glu Cys
 20 25 30
 Asp Tyr Ile Asn Ala Arg Ser Cys Cys Ser Lys Leu Asn Lys Trp Val
 35 40 45
 Ile Pro Glu Leu Ile Gly His Thr Ile Val Thr Val Leu Leu Leu Met
 50 55 60
 Ser Leu His Trp Phe Ile Phe Leu Leu Asn Leu Pro Val Ala Thr Trp
 65 70 75 80
 Asn Ile Tyr Arg Tyr Ile Met Val Pro Ser Gly Asn Met Gly Val Phe
 85 90 95
 Asp Pro Thr Glu Ile His Asn Arg Gly Gln Leu Lys Ser His Met Lys
 100 105 110
 Glu Ala Met Ile Lys Leu Gly Phe His Leu Leu Cys Phe Phe Met Tyr
 115 120 125
 Leu Tyr Ser Met Ile Leu Ala Leu Ile Asn Asp *
 130 135 139

<210> 1676
 <211> 804
 <212> PRT
 <213> Homo sapiens

<400> 1676
 Met Glu Ile Pro Lys Leu Leu Pro Ala Arg Gly Thr Leu Gln Gly Gly
 1 5 10 15
 Gly Gly Gly Gly Ile Pro Ala Gly Gly Gly Arg Val His Arg Gly Pro
 20 25 30
 Asp Ser Pro Ala Gly Gln Val Pro Thr Arg Arg Leu Leu Leu Arg
 35 40 45
 Gly Pro Gln Asp Gly Gly Pro Gly Arg Arg Arg Glu Glu Ala Ser Thr
 50 55 60
 Ala Ser Arg Gly Pro Gly Pro Ser Leu Leu Ala Pro Arg Thr Asp Gln
 65 70 75 80
 Pro Ser Gly Gly Gly Gly Gly Gly Gly Gly Asp Asp Phe Phe Leu Val Leu
 85 90 95
 Leu Asp Pro Val Gly Gly Asp Val Glu Thr Ala Gly Ser Gly Gln Ala
 100 105 110
 Ala Gly Pro Val Leu Arg Glu Glu Ala Glu Glu Gly Pro Gly Leu Gln
 115 120 125
 Gly Gly Glu Ser Gly Ala Asn Pro Ala Gly Pro Thr Ala Leu Gly Pro
 130 135 140
 Arg Cys Leu Ser Ala Val Pro Thr Pro Ala Pro Ile Ser Ala Pro Gly
 145 150 155 160

Pro Ala Ala Ala Phe Ala Gly Thr Val Thr Ile His Asn Gln Asp Leu
 165 170 175
 Leu Leu Arg Phe Glu Asn Gly Val Leu Thr Leu Ala Thr Pro Pro Pro
 180 185 190
 His Ala Trp Glu Pro Gly Ala Ala Pro Ala Gln Gln Pro Gly Cys Leu
 195 200 205
 Ile Ala Pro Gln Ala Gly Phe Pro His Ala Ala His Pro Gly Asp Cys
 210 215 220
 Pro Glu Leu Pro Pro Asp Leu Leu Leu Ala Glu Pro Ala Glu Pro Ala
 225 230 235 240
 Pro Ala Pro Ala Pro Glu Glu Glu Ala Glu Gly Pro Ala Ala Ala Leu
 245 250 255
 Gly Pro Arg Gly Pro Leu Gly Ser Gly Pro Gly Val Val Leu Tyr Leu
 260 265 270
 Cys Pro Glu Ala Gln Cys Gly Gln Thr Phe Ala Lys Lys His Gln Leu
 275 280 285
 Lys Val His Leu Leu Thr His Ser Ser Ser Gln Gly Gln Arg Pro Phe
 290 295 300
 Lys Cys Pro Leu Gly Gly Cys Gly Trp Thr Phe Thr Thr Ser Tyr Lys
 305 310 315 320
 Leu Lys Arg His Leu Gln Ser His Asp Lys Leu Arg Pro Phe Gly Cys
 325 330 335
 Pro Ala Glu Gly Cys Gly Lys Ser Phe Thr Thr Val Tyr Asn Leu Lys
 340 345 350
 Ala His Met Lys Gly His Glu Gln Glu Asn Ser Phe Lys Cys Glu Val
 355 360 365
 Cys Glu Glu Ser Phe Pro Thr Gln Ala Lys Leu Ser Ala His Gln Arg
 370 375 380
 Ser His Phe Glu Pro Glu Arg Pro Tyr Gln Cys Ala Phe Ser Gly Cys
 385 390 395 400
 Lys Lys Thr Phe Ile Thr Val Ser Ala Leu Phe Ser His Asn Arg Ala
 405 410 415
 His Phe Arg Glu Gln Glu Leu Phe Ser Cys Ser Phe Pro Gly Cys Ser
 420 425 430
 Lys Gln Tyr Asp Lys Ala Cys Arg Leu Lys Ile His Leu Arg Ser His
 435 440 445
 Thr Gly Glu Arg Pro Phe Leu Cys Asp Phe Asp Gly Cys Gly Trp Asn
 450 455 460
 Phe Thr Ser Met Ser Lys Leu Leu Arg His Lys Arg Lys His Asp Asp
 465 470 475 480
 Asp Arg Arg Phe Met Cys Pro Val Glu Gly Cys Gly Lys Ser Phe Thr
 485 490 495
 Arg Ala Glu His Leu Lys Gly His Ser Ile Thr His Leu Gly Thr Lys
 500 505 510
 Pro Phe Val Cys Pro Val Ala Gly Cys Cys Ala Arg Phe Ser Ala Arg
 515 520 525
 Ser Ser Leu Tyr Ile His Ser Lys Lys His Leu Gln Asp Val Asp Thr
 530 535 540
 Trp Lys Ser Arg Cys Pro Ile Ser Ser Cys Asn Lys Leu Phe Thr Ser
 545 550 555 560
 Lys His Ser Met Lys Thr His Met Val Lys Arg His Lys Val Gly Gln
 565 570 575
 Asp Leu Leu Ala Gln Leu Glu Ala Ala Asn Ser Leu Thr Pro Ser Ser
 580 585 590
 Glu Leu Thr Ser Gln Arg Gln Asn Asp Leu Ser Asp Ala Glu Ile Val
 595 600 605
 Ser Leu Phe Ser Asp Val Pro Asp Ser Thr Ser Ala Ala Leu Leu Asp
 610 615 620
 Thr Ala Leu Val Asn Ser Gly Ile Leu Thr Ile Asp Val Ala Ser Val
 625 630 635 640
 Ser Ser Thr Leu Ala Gly His Leu Pro Ala Asn Asn Asn Asn Ser Val
 645 650 655
 Gly Gln Ala Val Asp Pro Pro Ser Leu Met Ala Thr Ser Asp Pro Pro
 660 665 670

Gln Ser Leu Asp Thr Ser Leu Phe Phe Gly Thr Ala Ala Thr Gly Phe
 675 680 685
 Gln Gln Ser Ser Leu Asn Met Asp Glu Val Ser Ser Val Ser Val Gly
 690 695 700
 Pro Leu Gly Ser Leu Asp Ser Leu Ala Met Lys Asn Ser Ser Pro Glu
 705 710 715 720
 Pro Gln Ala Leu Thr Pro Ser Ser Lys Leu Thr Val Asp Thr Asp Ala
 725 730 735
 Leu Thr Pro Ser Ser Thr Leu Cys Glu Asn Ser Val Ser Glu Leu Leu
 740 745 750
 Thr Pro Thr Lys Ala Glu Trp Asn Val His Pro Asp Ser Asp Phe Phe
 755 760 765
 Gly Gln Glu Gly Glu Thr Gln Phe Gly Phe Pro Asn Ala Ala Gly Asn
 770 775 780
 His Gly Ser Gln Lys Glu Thr Asp Leu Ile Thr Val Thr Gly Ser Ser
 785 790 795 800
 Phe Leu Val *
 803

<210> 1677
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 1677
 Met Ala Ser Leu Lys Cys Ser Thr Val Val Cys Val Ile Cys Leu Glu
 1 5 10 15
 Lys Pro Lys Tyr Arg Cys Pro Ala Cys Arg Val Pro Tyr Cys Ser Val
 20 25 30
 Val Cys Phe Arg Lys His Lys Glu Gln Cys Asn Pro Glu Thr Arg Pro
 35 40 45
 Val Glu Lys Lys Ile Arg Ser Ala Leu Pro Thr Lys Thr Val Lys Pro
 50 55 60
 Val Glu Asn Lys Asp Asp Asp Asp Ser Ile Ala Asp Phe Leu Asn Ser
 65 70 75 80
 Asp Glu Glu Glu Asp Arg Val Ser Leu Gln Asn Leu Lys Asn Leu Gly
 85 90 95
 Glu Ser Ala Thr Leu Arg Ser Leu Leu Leu Asn Pro His Leu Arg Gln
 100 105 110
 Leu Met Val Asn Leu Asp Gln Gly Glu Asp Lys Ala Lys Leu Met Arg
 115 120 125
 Ala Tyr Met Gln Glu Pro Leu Phe Val Glu Phe Ala Asp Cys Cys Leu
 130 135 140
 Gly Ile Val Glu Pro Ser Gln Asn Glu Glu Ser *
 145 150 155

<210> 1678
 <211> 958
 <212> PRT
 <213> Homo sapiens

<400> 1678
 Met Pro Gly Arg Arg Pro Arg Pro Leu Ser Ala Glu Leu Gly Gly Ser
 1 5 10 15
 Thr Gln Ala Met Arg Asp Lys Cys Gly Ala Arg Asp Gly Ala Gly Thr
 20 25 30
 Cys Tyr Tyr Gly Thr Leu Lys Leu Ala Gly Pro Glu Ser Leu Arg Trp
 35 40 45

Leu	Ala	Leu	Asp	Gly	Glu	Arg	Asp	Val	Ala	Asp	Thr	Met	Lys	Asn	Phe
50						55					60				
Glu	Met	Arg	Ile	Leu	Leu	Asp	Tyr	Pro	Gly	Gly	Pro	Ser	Thr	Ile	Thr
65				70					75					80	
Gly	Ser	Glu	Arg	Val	Glu	Asp	Ala	Ser	Leu	Leu	Ala	Leu	Lys	Met	Glu
				85				90						95	
Glu	Gly	Ala	Met	Ser	Glu	Gly	Gly	Gly	Lys	Asn	Ser	His	Cys	Leu	Leu
			100					105					110		
Thr	Ser	Thr	Val	Arg	Pro	Arg	Ala	Thr	Ala	Tyr	Gly	Ala	Ser	Gly	Pro
			115				120					125			
Asp	Pro	Gly	Pro	Ala	Arg	Val	Ala	Ser	Arg	Arg	Leu	Gly	Ala	Ala	Val
130						135					140				
Gly	Leu	Leu	Ser	Ala	Asp	Thr	Leu	Trp	Pro	Leu	Asn	Gly	Leu	Ala	Arg
145					150					155					160
Ala	Ile	Asp	Glu	Glu	Ile	Glu	Ala	Leu	Arg	Asp	Asp	Ser	Gly	Asp	Asp
				165				170						175	
Asp	Glu	Ala	Thr	Thr	Pro	Ala	Asp	Lys	Ser	Glu	Leu	His	His	Thr	Leu
			180					185					190		
Lys	Asn	Leu	Ser	Leu	Lys	Leu	Asp	Asp	Leu	Ser	Thr	Cys	Asn	Asp	Leu
			195				200					205			
Ile	Ala	Lys	His	Gly	Ala	Ala	Leu	Gln	Arg	Ser	Leu	Thr	Glu	Leu	Asp
210						215					220				
Gly	Leu	Lys	Ile	Pro	Ser	Glu	Ser	Gly	Glu	Lys	Leu	Lys	Val	Val	Asn
225					230					235					240
Glu	Arg	Ala	Thr	Leu	Phe	Arg	Ile	Thr	Ser	Asn	Ala	Met	Ile	Asn	Gly
				245				250						255	
Ala	Ala	Ala	Ile	Leu	Thr	Ser	Tyr	Gln	Glu	Trp	Leu	Gln	Pro	Gln	Gly
			260					265					270		
Phe	Glu	Gly	Thr	Arg	Cys	Ser	Glu	Val	Val	Ser	Gly	Leu	Gly	Ile	Trp
			275				280					285			
Asn	Ser	Asn	Ala	Val	Phe	Gln	Pro	Pro	Thr	Pro	Leu	Pro	Val	Leu	Tyr
290						295					300				
Leu	Leu	Glu	His	Pro	Phe	Leu	Thr	Leu	Gln	His	Ser	Gln	Asp	Gly	Ala
305					310					315					320
Trp	Arg	Arg	Pro	Ala	Ala	Ala	Glu	Glu	Thr	Leu	Gly	Val	Arg	Asp	Gly
				325					330					335	
His	Gln	Val	Arg	Thr	Gly	Val	Pro	Ile	Phe	Leu	Leu	Trp	Gly	Gly	Thr
				340				345					350		
Ala	Cys	Asp	Val	His	Gly	Ala	Gln	Trp	Val	Leu	Gln	Ala	Cys	Arg	Asp
				355			360					365			
Phe	Leu	Glu	Leu	Ala	Glu	Ile	His	Ser	Arg	Lys	Trp	Gln	Arg	Ala	Leu
				370			375				380				
Gln	Tyr	Glu	Gln	Glu	Gln	Arg	Val	His	Leu	Glu	Glu	Thr	Ile	Glu	Gln
385					390					395					400
Leu	Ala	Lys	Gln	His	Asn	Ser	Leu	Glu	Arg	Ala	Phe	His	Ser	Ala	Pro
				405				410						415	
Gly	Arg	Pro	Ala	Asn	Pro	Ser	Lys	Ser	Phe	Ile	Glu	Gly	Ser	Leu	Leu
				420				425					430		
Thr	Pro	Lys	Gly	Glu	Asp	Ser	Glu	Glu	Asp	Glu	Asp	Thr	Glu	Tyr	Phe
				435			440					445			
Asp	Ala	Met	Glu	Asp	Ser	Thr	Ser	Phe	Ile	Thr	Val	Ile	Thr	Glu	Ala
				450			455				460				
Lys	Glu	Asp	Ser	Arg	Lys	Ala	Glu	Gly	Ser	Thr	Gly	Thr	Ser	Ser	Val
465					470					475					480
Asp	Trp	Ser	Ser	Ala	Asp	Asn	Val	Leu	Asp	Gly	Ala	Ser	Leu	Val	Pro
				485				490						495	
Lys	Gly	Ser	Ser	Lys	Val	Lys	Arg	Arg	Val	Arg	Ile	Pro	Asn	Lys	Pro
				500				505					510		
Asn	Tyr	Ser	Leu	Asn	Leu	Trp	Ser	Ile	Met	Lys	Asn	Cys	Ile	Gly	Arg
				515			520					525			
Glu	Leu	Ser	Arg	Ile	Pro	Met	Pro	Val	Asn	Phe	Asn	Glu	Pro	Leu	Ser
				530			535				540				
Met	Leu	Gln	Arg	Leu	Thr	Glu	Asp	Leu	Glu	Tyr	His	His	Leu	Leu	Asp
545					550					555					560

Lys Ala Val His Cys Thr Ser Ser Val Glu Gln Met Cys Leu Val Ala
 565 570 575
 Ala Phe Ser Val Ser Ser Tyr Ser Thr Thr Val His Arg Ile Ala Lys
 580 585 590
 Pro Phe Asn Pro Met Leu Gly Glu Thr Phe Glu Leu Asp Arg Leu Asp
 595 600 605
 Asp Met Gly Leu Arg Ser Leu Cys Glu Gln Val Ser His His Pro Pro
 610 615 620
 Ser Ala Ala His Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln
 625 630 635 640
 Glu Ile Thr Ile Ser Ser Lys Phe Arg Gly Lys Tyr Ile Ser Ile Met
 645 650 655
 Pro Leu Gly Ala Ile His Leu Glu Phe Gln Ala Ser Gly Asn His Tyr
 660 665 670
 Val Trp Arg Lys Ser Thr Ser Thr Val His Asn Ile Ile Val Gly Lys
 675 680 685
 Leu Trp Ile Asp Gln Ser Gly Asp Ile Glu Ile Val Asn His Lys Thr
 690 695 700
 Asn Asp Arg Cys Gln Leu Lys Phe Leu Pro Tyr Ser Tyr Phe Ser Lys
 705 710 715 720
 Glu Ala Ala Arg Lys Val Thr Gly Val Val Ser Asp Ser Gln Gly Lys
 725 730 735
 Ala His Tyr Val Leu Ser Gly Ser Trp Asp Glu Gln Met Glu Cys Ser
 740 745 750
 Lys Val Met His Ser Ser Pro Ser Ser Pro Ser Ser Asp Gly Lys Gln
 755 760 765
 Lys Thr Val Tyr Gln Thr Leu Ser Ala Lys Leu Leu Trp Lys Lys Tyr
 770 775 780
 Pro Leu Pro Glu Asn Ala Glu Asn Met Tyr Tyr Phe Ser Glu Leu Ala
 785 790 795 800
 Leu Thr Leu Asn Glu His Glu Glu Gly Val Ala Pro Thr Asp Ser Arg
 805 810 815
 Leu Arg Pro Asp Gln Arg Leu Met Glu Lys Gly Arg Trp Asp Glu Ala
 820 825 830
 Asn Thr Glu Lys Gln Arg Leu Glu Glu Lys Gln Arg Leu Ser Arg Arg
 835 840 845
 Arg Arg Leu Glu Ala Cys Gly Pro Gly Ser Ser Cys Ser Ser Glu Glu
 850 855 860
 Glu Gly Val Lys Ala Phe Asp Lys Ile Gln Pro Val Ser Arg Gly His
 865 870 875 880
 Ser Pro Arg Phe Ile Leu Cys Asp Cys Cys Pro Leu Ala Pro Asn Ser
 885 890 895
 Gly Arg Thr Gly Asn Tyr Arg Lys Leu Ala Arg Leu Pro Lys Arg Met
 900 905 910
 Arg Arg Ser Arg Tyr Gly His Val Arg Arg Ala Ser Lys Thr Thr Gln
 915 920 925
 Ala Ser Cys Arg Phe Arg Leu Glu Arg Val Ala Gly Leu Arg Lys Pro
 930 935 940
 Ser Thr Val His Asn Arg Trp Leu Val Met Asn Arg Ser *
 945 950 955 957

<210> 1679

<211> 2190

<212> PRT

<213> Homo sapiens

<400> 1679

Met Gly Ile Phe Val Lys Thr Ile Phe Pro Asn Gly Ser Ala Ala Glu
 1 5 10 15
 Asp Gly Arg Leu Lys Glu Gly Asp Glu Ile Leu Asp Val Asn Gly Ile
 20 25 30

Pro Ile Lys Gly Leu Thr Phe Gln Glu Ala Ile His Thr Phe Lys Gln
 35 40 45
 Ile Arg Ser Gly Leu Phe Val Leu Thr Val Arg Thr Lys Leu Val Ser
 50 55 60
 Pro Ser Leu Thr Pro Cys Ser Thr Pro Thr His Met Ser Arg Ser Ala
 65 70 75 80
 Ser Pro Asn Phe Asn Thr Ser Gly Gly Ala Ser Ala Gly Gly Ser Asp
 85 90 95
 Glu Gly Ser Ser Ser Ser Leu Gly Arg Lys Thr Pro Gly Pro Lys Asp
 100 105 110
 Arg Ile Val Met Glu Val Thr Leu Asn Lys Glu Pro Arg Val Gly Leu
 115 120 125
 Gly Ile Gly Ala Cys Cys Leu Ala Leu Glu Asn Ser Pro Pro Gly Ile
 130 135 140
 Tyr Ile His Ser Leu Ala Pro Gly Ser Val Ala Lys Met Glu Ser Asn
 145 150 155 160
 Leu Ser Arg Gly Asp Gln Ile Leu Glu Val Asn Ser Val Asn Val Arg
 165 170 175
 His Ala Ala Leu Ser Lys Val His Ala Ile Leu Ser Lys Cys Pro Pro
 180 185 190
 Gly Pro Val Arg Leu Val Ile Gly Arg His Pro Asn Pro Lys Asp Ser
 195 200 205
 Leu Ile Ser Glu Ser Glu Leu Ser Gln Tyr Phe Ala His Asp Val Pro
 210 215 220
 Gly Pro Leu Ser Asp Phe Met Val Ala Gly Ser Glu Asp Glu Asp His
 225 230 235 240
 Pro Gly Ser Gly Cys Ser Thr Ser Glu Glu Gly Ser Leu Pro Pro Ser
 245 250 255
 Thr Ser Thr His Lys Glu Pro Gly Lys Pro Arg Ala Asn Ser Leu Val
 260 265 270
 Thr Leu Gly Ser His Arg Ala Ser Gly Leu Phe His Lys Gln Val Thr
 275 280 285
 Val Ala Arg Gln Ala Ser Leu Pro Gly Ser Pro Gln Ala Leu Arg Asn
 290 295 300
 Pro Leu Leu Arg Gln Arg Lys Val Gly Cys Tyr Asp Ala Asn Asp Ala
 305 310 315 320
 Ser Asp Glu Glu Glu Phe Asp Arg Glu Gly Asp Cys Ile Ser Leu Pro
 325 330 335
 Gly Ala Leu Pro Gly Pro Ile Arg Pro Leu Ser Glu Asp Asp Pro Arg
 340 345 350
 Arg Val Ser Ile Ser Ser Ser Lys Gly Met Asp Val His Asn Gln Glu
 355 360 365
 Glu Arg Pro Arg Lys Thr Leu Val Ser Lys Ala Ile Ser Ala Pro Leu
 370 375 380
 Leu Gly Ser Ser Val Asp Leu Glu Glu Ser Ile Pro Glu Gly Met Val
 385 390 395 400
 Asp Ala Ala Ser Tyr Ala Ala Asn Leu Thr Asp Ser Ala Glu Ala Pro
 405 410 415
 Lys Gly Ser Pro Gly Ser Trp Trp Lys Lys Glu Leu Ser Gly Ser Ser
 420 425 430
 Ser Ala Pro Lys Leu Glu Tyr Thr Val Arg Thr Asp Thr Gln Ser Pro
 435 440 445
 Thr Asn Thr Gly Ser Pro Ser Ser Pro Gln Gln Lys Ser Glu Gly Leu
 450 455 460
 Gly Ser Arg His Arg Pro Val Ala Arg Val Ser Pro His Cys Lys Arg
 465 470 475 480
 Ser Glu Ala Glu Ala Lys Pro Ser Gly Ser Gln Thr Val Asn Leu Thr
 485 490 495
 Gly Arg Ala Asn Asp Pro Cys Asp Leu Asp Ser Arg Val Gln Ala Thr
 500 505 510
 Ser Val Lys Val Thr Val Ala Gly Phe Gln Pro Gly Gly Ala Val Glu
 515 520 525
 Lys Glu Ser Leu Gly Lys Leu Thr Thr Gly Asp Ala Cys Val Ser Thr
 530 535 540

Ser Cys Glu Leu Ala	Ser Ala Leu Ser His Leu Asp Ala Ser His Leu	
545	550	555 560
Thr Glu Asn Leu Pro Lys Ala Ala	Ser Glu Leu Gly Gln Gln Pro Met	
	565 570	575
Thr Glu Leu Asp Ser Ser Ser Asp Leu Ile Ser Ser Pro Gly Lys Lys		
	580 585	590
Gly Ala Ala His Pro Asp Pro Ser Lys Thr Ser Val Asp Thr Gly Lys		
	595 600	605
Val Ser Arg Pro Glu Asn Pro Ser Gln Pro Ala Ser Pro Arg Val Ala		
	610 615	620
Lys Cys Lys Ala Arg Ser Pro Val Arg Leu Pro His Glu Gly Ser Pro		
	625 630	635 640
Ser Pro Gly Glu Lys Ala Ala Ala Pro Pro Asp Tyr Ser Lys Thr Arg		
	645 650	655
Ser Ala Ser Glu Thr Ser Thr Pro His Asn Thr Arg Arg Val Ala Ala		
	660 665	670
Leu Arg Gly Ala Gly Pro Gly Ala Glu Gly Met Thr Pro Ala Gly Ala		
	675 680	685
Val Leu Pro Gly Asp Pro Leu Thr Ser Gln Glu Gln Arg Gln Gly Ala		
	690 695	700
Pro Gly Asn His Ser Lys Ala Leu Glu Met Thr Gly Ile His Ala Pro		
	705 710	715 720
Glu Ser Ser Gln Glu Pro Ser Leu Leu Glu Gly Ala Asp Ser Val Ser		
	725 730	735
Ser Arg Ala Pro Gln Ala Ser Leu Ser Met Leu Pro Ser Thr Asp Asn		
	740 745	750
Thr Lys Glu Ala Cys Gly His Val Ser Gly His Cys Cys Pro Gly Gly		
	755 760	765
Ser Arg Glu Ser Pro Val Thr Asp Ile Asp Ser Phe Ile Lys Glu Leu		
	770 775	780
Asp Ala Ser Ala Ala Arg Ser Pro Ser Ser Gln Thr Gly Asp Ser Gly		
	785 790	795 800
Ser Gln Glu Gly Ser Ala Gln Gly His Pro Pro Ala Gly Ala Gly Gly		
	805 810	815
Gly Ser Ser Cys Arg Ala Glu Pro Val Pro Gly Gly Gln Thr Ser Ser		
	820 825	830
Pro Arg Arg Ala Trp Ala Ala Gly Ala Pro Ala Tyr Pro Gln Trp Ala		
	835 840	845
Ser Gln Pro Ser Val Leu Asp Ser Ile Asn Pro Asp Lys His Phe Thr		
	850 855	860
Val Asn Lys Asn Phe Leu Ser Asn Tyr Ser Arg Asn Phe Ser Ser Phe		
	865 870	875 880
His Glu Asp Ser Thr Ser Leu Ser Gly Leu Gly Asp Ser Thr Glu Pro		
	885 890	895
Ser Leu Ser Ser Met Tyr Gly Asp Ala Glu Asp Ser Ser Ser Asp Pro		
	900 905	910
Glu Ser Leu Thr Glu Ala Pro Arg Ala Ser Ala Arg Asp Gly Trp Ser		
	915 920	925
Pro Pro Arg Ser Arg Val Ser Leu His Lys Glu Asp Pro Ser Glu Ser		
	930 935	940
Glu Glu Glu Gln Ile Glu Ile Cys Ser Thr Arg Gly Cys Pro Asn Pro		
	945 950	955 960
Pro Ser Ser Pro Ala His Leu Pro Thr Gln Ala Ala Ile Cys Pro Ala		
	965 970	975
Ser Ala Lys Val Leu Ser Leu Lys Tyr Ser Thr Pro Arg Glu Ser Val		
	980 985	990
Ala Ser Pro Arg Glu Lys Ala Ala Cys Leu Pro Gly Ser Tyr Thr Ser		
	995 1000	1005
Gly Pro Asp Ser Ser Gln Pro Ser Ser Leu Leu Glu Met Ser Ser Gln		
	1010 1015	1020
Glu His Glu Thr His Ala Asp Ile Ser Thr Ser Gln Asn His Arg Pro		
	1025 1030	1035 1040
Ser Cys Ala Glu Glu Thr Thr Glu Val Thr Ser Ala Ser Ser Ala Met		
	1045 1050	1055

Glu Asn Ser Pro Leu Ser Lys Val Ala Arg His Phe His Ser Pro Pro
 1060 1065 1070
 Ile Ile Leu Ser Ser Pro Asn Met Val Asn Gly Leu Glu His Asp Leu
 1075 1080 1085
 Leu Asp Asp Glu Thr Leu Asn Gln Tyr Glu Thr Ser Ile Asn Ala Ala
 1090 1095 1100
 Ala Ser Leu Ser Ser Phe Ser Val Asp Val Pro Lys Asn Gly Glu Ser
 1105 1110 1115 1120
 Val Leu Glu Asn Leu His Ile Ser Glu Ser Gln Asp Leu Asp Asp Leu
 1125 1130 1135
 Leu Gln Lys Pro Lys Met Ile Ala Arg Arg Pro Ile Met Ala Trp Phe
 1140 1145 1150
 Lys Glu Ile Asn Lys His Asn Gln Gly Thr His Leu Arg Ser Lys Thr
 1155 1160 1165
 Glu Lys Glu Gln Pro Leu Met Pro Ala Arg Ser Pro Asp Ser Lys Ile
 1170 1175 1180
 Gln Met Val Ser Ser Ser Gln Lys Lys Gly Val Thr Val Pro His Ser
 1185 1190 1195 1200
 Pro Pro Gln Pro Lys Thr Asn Leu Glu Asn Lys Asp Leu Ser Lys Lys
 1205 1210 1215
 Ser Pro Ala Glu Met Leu Leu Thr Asn Gly Gln Lys Ala Lys Cys Gly
 1220 1225 1230
 Pro Lys Leu Lys Arg Leu Ser Leu Lys Gly Lys Ala Lys Val Asn Ser
 1235 1240 1245
 Glu Ala Pro Ala Ala Asn Ala Val Lys Ala Gly Gly Thr Asp His Arg
 1250 1255 1260
 Lys Pro Leu Ile Ser Pro Gln Thr Ser His Lys Thr Leu Ser Lys Ala
 1265 1270 1275 1280
 Val Ser Gln Arg Leu His Val Ala Asp His Glu Asp Pro Asp Arg Asn
 1285 1290 1295
 Thr Thr Ala Ala Pro Arg Ser Pro Gln Cys Val Leu Glu Ser Lys Pro
 1300 1305 1310
 Pro Leu Ala Thr Ser Gly Pro Leu Lys Pro Ser Val Ser Asp Thr Ser
 1315 1320 1325
 Ile Arg Thr Phe Val Ser Pro Leu Thr Ser Pro Lys Pro Val Pro Glu
 1330 1335 1340
 Gln Gly Met Trp Ser Arg Phe His Met Ala Val Leu Ser Glu Pro Asp
 1345 1350 1355 1360
 Arg Gly Cys Pro Thr Thr Pro Lys Ser Pro Lys Cys Arg Ala Glu Gly
 1365 1370 1375
 Arg Ala Pro Arg Ala Asp Ser Gly Pro Val Ser Pro Ala Ala Ser Arg
 1380 1385 1390
 Asn Gly Met Ser Val Ala Gly Asn Arg Gln Ser Glu Pro Arg Leu Ala
 1395 1400 1405
 Ser His Val Ala Ala Asp Thr Ala Gln Pro Arg Pro Thr Gly Glu Lys
 1410 1415 1420
 Gly Gly Asn Ile Met Ala Ser Asp Arg Leu Glu Arg Thr Asn Gln Leu
 1425 1430 1435 1440
 Lys Ile Val Glu Ile Ser Ala Glu Ala Val Ser Glu Thr Val Cys Gly
 1445 1450 1455
 Asn Lys Pro Ala Glu Ser Asp Arg Arg Gly Gly Cys Leu Ala Gln Gly
 1460 1465 1470
 Asn Cys Gln Glu Lys Ser Glu Ile Arg Leu Tyr Arg Gln Val Ala Glu
 1475 1480 1485
 Ser Ser Thr Ser His Pro Ser Ser Leu Pro Ser His Ala Ser Gln Ala
 1490 1495 1500
 Glu Gln Glu Met Ser Arg Ser Phe Ser Met Thr Lys Leu Ala Ser Ser
 1505 1510 1515 1520
 Ser Ser Ser Leu Gln Thr Ala Ile Arg Lys Ala Glu Tyr Ser Gln Gly
 1525 1530 1535
 Lys Ser Ser Leu Met Ser Asp Ser Arg Gly Val Pro Arg Asn Ser Ile
 1540 1545 1550
 Pro Gly Gly Pro Ser Gly Glu Asp His Leu Tyr Phe Thr Pro Arg Pro
 1555 1560 1565

Ala Thr Arg Thr Tyr Ser Met Pro Ala Gln Phe Ser Ser His Phe Gly
 1570 1575 1580
 Arg Glu Gly His Pro Pro His Ser Leu Gly Arg Ser Arg Asp Ser Gln
 1585 1590 1595 1600
 Val Pro Val Thr Ser Ser Val Val Pro Glu Ala Lys Ala Ser Arg Gly
 1605 1610 1615
 Gly Leu Pro Ser Leu Ala Asn Gly Gln Gly Ile Tyr Ser Val Lys Pro
 1620 1625 1630
 Leu Leu Asp Thr Ser Arg Asn Leu Pro Ala Thr Asp Glu Gly Asp Ile
 1635 1640 1645
 Ile Ser Val Gln Glu Thr Ser Cys Leu Val Thr Asp Lys Ile Lys Val
 1650 1655 1660
 Thr Arg Arg His Tyr Cys Tyr Glu Gln Asn Trp Pro His Glu Ser Thr
 1665 1670 1675 1680
 Ser Phe Phe Ser Val Lys Gln Arg Ile Lys Ser Phe Glu Asn Leu Ala
 1685 1690 1695
 Asn Ala Asp Arg Pro Val Ala Lys Ser Gly Ala Ser Pro Phe Leu Ser
 1700 1705 1710
 Val Ser Ser Lys Pro Pro Ile Gly Arg Arg Ser Ser Gly Ser Ile Val
 1715 1720 1725
 Ser Gly Ser Leu Gly His Pro Gly Asp Ala Ala Ala Arg Leu Leu Arg
 1730 1735 1740
 Arg Ser Leu Ser Ser Cys Ser Glu Asn Gln Ser Glu Ala Gly Thr Leu
 1745 1750 1755 1760
 Leu Pro Gln Met Ala Lys Ser Pro Ser Ile Met Thr Leu Thr Ile Ser
 1765 1770 1775
 Arg Gln Asn Pro Pro Glu Thr Ser Ser Lys Gly Ser Asp Ser Glu Leu
 1780 1785 1790
 Lys Lys Ser Leu Gly Pro Leu Gly Ile Pro Thr Pro Thr Met Thr Leu
 1795 1800 1805
 Ala Ser Pro Val Lys Arg Asn Lys Ser Ser Val Arg His Thr Gln Pro
 1810 1815 1820
 Ser Pro Val Ser Arg Ser Lys Leu Gln Glu Leu Arg Ala Leu Ser Met
 1825 1830 1835 1840
 Pro Asp Leu Asp Lys Leu Cys Ser Glu Asp Tyr Ser Ala Gly Pro Ser
 1845 1850 1855
 Ala Val Leu Phe Lys Thr Glu Leu Glu Ile Thr Pro Arg Arg Ser Pro
 1860 1865 1870
 Gly Pro Pro Ala Gly Gly Val Ser Cys Pro Glu Lys Gly Gly Asn Arg
 1875 1880 1885
 Ala Cys Pro Gly Gly Ser Gly Pro Lys Thr Ser Ala Ala Glu Thr Pro
 1890 1895 1900
 Ser Ser Ala Ser Asp Thr Gly Glu Ala Ala Gln Asp Leu Pro Phe Arg
 1905 1910 1915 1920
 Arg Ser Trp Ser Val Asn Leu Asp Gln Leu Leu Val Ser Ala Gly Asp
 1925 1930 1935
 Gln Gln Arg Leu Gln Ser Val Leu Ser Ser Val Gly Ser Lys Ser Thr
 1940 1945 1950
 Ile Leu Thr Leu Ile Gln Glu Ala Lys Ala Gln Ser Glu Asn Glu Glu
 1955 1960 1965
 Asp Val Cys Phe Ile Val Leu Asn Arg Lys Glu Gly Ser Gly Leu Gly
 1970 1975 1980
 Phe Ser Val Ala Gly Gly Thr Asp Val Glu Pro Lys Ser Ile Thr Val
 1985 1990 1995 2000
 His Arg Val Phe Ser Gln Gly Ala Ala Ser Gln Glu Gly Thr Met Asn
 2005 2010 2015
 Arg Gly Asp Phe Leu Leu Ser Val Asn Gly Ala Ser Leu Ala Gly Leu
 2020 2025 2030
 Ala His Gly Asn Val Leu Lys Val Leu His Gln Ala Gln Leu His Lys
 2035 2040 2045
 Asp Ala Leu Val Val Ile Lys Lys Gly Met Asp Gln Pro Arg Pro Ser
 2050 2055 2060
 Ala Arg Gln Glu Pro Pro Thr Ala Asn Gly Lys Gly Leu Leu Ser Arg
 2065 2070 2075 2080

Lys Thr Ile Pro Leu Glu Pro Gly Ile Gly Arg Ser Val Ala Val His
 2085 2090 2095
 Asp Ala Leu Cys Val Glu Val Leu Lys Thr Ser Ala Gly Leu Gly Leu
 2100 2105 2110
 Ser Leu Asp Gly Gly Lys Ser Ser Val Thr Gly Asp Gly Pro Leu Val
 2115 2120 2125
 Ile Lys Arg Val Tyr Lys Gly Gly Val Ala Glu Gln Ala Gly Ile Ile
 2130 2135 2140
 Glu Ala Gly Asp Glu Ile Leu Ala Ile Asn Gly Lys Pro Leu Val Gly
 2145 2150 2155 2160
 Leu Met His Phe Asp Ala Trp Asn Ile Met Lys Ser Val Pro Glu Gly
 2165 2170 2175
 Pro Val Gln Leu Leu Ile Arg Lys His Arg Asn Ser Ser *
 2180 2185 2189

<210> 1680

<211> 402

<212> PRT

<213> Homo sapiens

<400> 1680

Met Pro Val Gln Leu Ser Glu His Pro Glu Trp Asn Glu Ser Met His
 1 5 10 15
 Ser Leu Arg Ile Ser Val Gly Gly Leu Pro Val Leu Ala Ser Met Thr
 20 25 30
 Lys Ala Ala Asp Pro Arg Phe Arg Pro Arg Trp Lys Val Ile Leu Thr
 35 40 45
 Phe Phe Val Gly Ala Ala Ile Leu Trp Leu Leu Cys Ser His Arg Pro
 50 55 60
 Ala Pro Gly Arg Pro Pro Thr His Asn Ala His Asn Trp Arg Leu Gly
 65 70 75 80
 Gln Ala Pro Ala Asn Trp Tyr Asn Asp Thr Tyr Pro Leu Ser Pro Pro
 85 90 95
 Gln Arg Thr Pro Ala Gly Ile Arg Tyr Arg Ile Ala Val Ile Ala Asp
 100 105 110
 Leu Asp Thr Glu Ser Arg Ala Gln Glu Glu Asn Thr Trp Phe Ser Tyr
 115 120 125
 Leu Lys Lys Gly Tyr Leu Thr Leu Ser Asp Ser Gly Asp Lys Val Ala
 130 135 140
 Val Glu Trp Asp Lys Asp His Gly Val Leu Glu Ser His Leu Ala Glu
 145 150 155 160
 Lys Gly Arg Gly Met Glu Leu Ser Asp Leu Ile Val Phe Asn Gly Lys
 165 170 175
 Leu Tyr Ser Val Asp Asp Arg Thr Gly Val Val Tyr Gln Ile Glu Gly
 180 185 190
 Ser Lys Ala Val Pro Trp Val Ile Leu Ser Asp Gly Asp Gly Thr Val
 195 200 205
 Glu Lys Gly Phe Lys Ala Glu Trp Leu Ala Val Lys Asp Glu Arg Leu
 210 215 220
 Tyr Val Gly Gly Leu Gly Lys Glu Trp Thr Thr Thr Thr Gly Asp Val
 225 230 235 240
 Val Asn Glu Asn Pro Glu Trp Val Lys Val Val Gly Tyr Lys Gly Ser
 245 250 255
 Val Asp His Glu Asn Trp Val Ser Asn Tyr Asn Ala Leu Arg Ala Ala
 260 265 270
 Ala Gly Ile Gln Pro Pro Gly Tyr Leu Ile His Glu Ser Ala Cys Trp
 275 280 285
 Ser Asp Thr Leu Gln Arg Trp Phe Phe Leu Pro Arg Arg Ala Ser Gln
 290 295 300
 Glu Arg Tyr Ser Glu Lys Asp Asp Glu Arg Lys Gly Ala Asn Leu Leu
 305 310 315 320

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<210> 1681
<211> 333
<212> PRT
<213> Homo sapiens
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3545

<210> 1682
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 1682
 Met Ala Ala Thr Leu Gly Pro Leu Gly Ser Trp Gln Gln Trp Arg Arg
 1 5 10 15
 Cys Leu Ser Ala Arg Asp Gly Ser Arg Arg Leu Leu Leu Leu Leu Leu
 20 25 30
 Leu Gly Ser Gly Gln Gly Pro Gln Gln Val Gly Ala Gly Gln Thr Phe
 35 40 45
 Glu Tyr Leu Lys Arg Glu His Ser Leu Ser Lys Pro Tyr Gln Gly Glu
 50 55 60
 Ala Pro Arg Pro Cys Phe Leu Arg Asp Trp Glu Leu Gln Val His Phe
 65 70 75 80
 Lys Ile His Gly Gln Gly Lys Lys Asn Leu His Gly Asp Gly Leu Ala
 85 90 95
 Ile Trp Tyr Thr Lys Asp Arg Met Gln Pro Gly Pro Val Phe Gly Asn
 100 105 110
 Met Asp Lys Phe Val Gly Leu Gly Val Phe Val Asp Thr Tyr Pro Asn
 115 120 125
 Glu Glu Lys Gln Gln Glu Arg Val Phe Pro Tyr Ile Ser Ala Met Val
 130 135 140
 Asn Asn Gly Ser Leu Ser Tyr Asp His Glu Arg Asp Gly Arg Pro Thr
 145 150 155 160
 Glu Leu Gly Gly Cys Thr Ala Ile Val Arg Asn Leu His Tyr Asp Thr
 165 170 175
 Phe Leu Val Ile Arg Tyr Val Lys Arg His Leu Thr Ile Met Met Asp
 180 185 190
 Ile Asp Gly Lys His Glu Trp Arg Asp Cys Ile Glu Val Pro Gly Val
 195 200 205
 Arg Leu Pro Arg Gly Tyr Tyr Phe Gly Thr Ser Ser Ile Thr Gly Asp
 210 215 220
 Leu Ser Asp Asn His Asp Val Ile Ser Leu Lys Leu Phe Glu Leu Thr
 225 230 235 240
 Val Glu Arg Thr Pro Glu Glu Glu Lys Leu His Arg Asp Val Phe Leu
 245 250 255
 Pro Ser Val Asp Asn Met Lys Leu Pro Glu Met Thr Ala Pro Leu Pro
 260 265 270
 Pro Leu Ser Gly Leu Ala Leu Phe Leu Ile Val Phe Phe Ser Leu Val
 275 280 285
 Phe Ser Val Phe Ala Ile Val Ile Gly Ile Ile Leu Tyr Asn Lys Trp
 290 295 300
 Gln Glu Gln Ser Arg Lys Arg Phe Tyr *
 305 310 313

<210> 1683
 <211> 378
 <212> PRT
 <213> Homo sapiens

<400> 1683
 Met Gln Pro Pro Pro Pro Gly Pro Leu Gly Asp Cys Leu Arg Asp Trp
 1 5 10 15
 Glu Asp Leu Gln Gln Asp Phe Gln Asn Ile Gln Glu Thr His Arg Leu
 20 25 30

Tyr Arg Leu Lys Leu Glu Glu Leu Thr Lys Leu Gln Asn Asn Cys Thr
 35 40 45
 Ser Ser Ile Thr Arg Gln Lys Lys Arg Leu Gln Glu Leu Ala Leu Ala
 50 55 60
 Leu Lys Lys Cys Lys Pro Ser Leu Pro Ala Glu Ala Glu Gly Ala Ala
 65 70 75 80
 Gln Glu Leu Glu Asn Gln Met Lys Glu Arg Gln Gly Leu Phe Phe Asp
 85 90 95
 Met Glu Ala Tyr Leu Pro Lys Lys Asn Gly Leu Tyr Leu Ser Leu Val
 100 105 110
 Leu Gly Asn Val Asn Val Thr Leu Leu Ser Lys Gln Ala Lys Phe Ala
 115 120 125
 Tyr Lys Asp Glu Tyr Glu Lys Phe Lys Leu Tyr Leu Thr Ile Ile Leu
 130 135 140
 Ile Leu Ile Ser Phe Thr Cys Arg Phe Leu Leu Asn Ser Arg Val Thr
 145 150 155 160
 Asp Ala Ala Phe Asn Phe Leu Leu Val Trp Tyr Tyr Cys Thr Leu Thr
 165 170 175
 Ile Arg Glu Ser Ile Leu Ile Asn Asn Gly Ser Arg Ile Lys Gly Trp
 180 185 190
 Trp Val Phe His His Tyr Val Ser Thr Phe Leu Ser Gly Val Met Leu
 195 200 205
 Thr Trp Pro Asp Gly Leu Met Tyr Gln Lys Phe Arg Asn Gln Phe Leu
 210 215 220
 Ser Phe Ser Met Tyr Gln Ser Phe Val Gln Phe Leu Gln Tyr Tyr Tyr
 225 230 235 240
 Gln Ser Gly Cys Leu Tyr Arg Leu Arg Ala Leu Gly Glu Arg His Thr
 245 250 255
 Met Asp Leu Thr Val Glu Gly Phe Gln Ser Trp Met Trp Arg Gly Leu
 260 265 270
 Thr Phe Leu Leu Pro Phe Leu Phe Phe Gly His Phe Trp Gln Leu Phe
 275 280 285
 Asn Ala Leu Thr Leu Phe Asn Leu Ala Gln Asp Pro Gln Cys Lys Glu
 290 295 300
 Trp Gln Val Leu Met Cys Gly Phe Pro Phe Leu Leu Leu Phe Leu Gly
 305 310 315 320
 Asn Phe Phe Thr Thr Leu Arg Val Val His Gln Leu His His Ala Ala
 325 330 335
 Glu Glu Ala Ala Pro Gly Ala Gly Pro Ser Pro Glu Glu Met Gln Thr
 340 345 350
 Leu Pro Pro Ser Arg Gly Arg Gly Gly Arg Thr Gly Ala Gly Glu Pro
 355 360 365
 Asp Glu Arg Ala Pro Arg Pro Leu Leu *
 370 375 377

<210> 1684

<211> 195

<212> PRT

<213> Homo sapiens

<400> 1684

Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp Leu
 1 5 10 15
 Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser Leu Asp
 20 25 30
 Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly Leu Asn Tyr
 35 40 45
 Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile Asp Met Pro Tyr
 50 55 60
 Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile Gly Gln Lys Tyr Cys
 65 70 75 80

Met Asp Pro Ala Val Ile Ala Gly Val Leu Ser Arg Lys Ser Pro Gly
 85 90 95
 Asp Lys Ile Leu Val Asn Met Gly Asp Arg Thr Ser Met Val Gln Asp
 100 105 110
 Pro Gly Ser Gln Ala Pro Thr Ser Trp Ile Ser Glu Ser Gln Val Ser
 115 120 125
 Gln Thr Thr Glu Val Leu Thr Thr Arg Ile Lys Glu Ile Gln Arg Arg
 130 135 140
 Phe Pro Thr Trp Thr Pro Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala
 145 150 155 160
 Tyr Ser Gly Gly Ala Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys
 165 170 175
 Asp Phe Cys Asn Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His
 180 185 190
 Gly Phe *
 194

<210> 1685
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 1685
 Met Lys Ile Lys Pro Gly Phe Met Gly Lys Ala Thr Pro Pro Tyr Asp
 1 5 10 15
 Val Gln Phe His Met Glu Ala Ser Val Glu Asn Cys Ile Ile Val Ser
 20 25 30
 Met Asn Thr Ala Asp Pro Gly Ser Gln Gly Ile Thr His Ser Leu Leu
 35 40 45
 Leu Gln Val Ile Asp Asp Lys Gly Ser Ile Leu Pro Pro Asn Thr Glu
 50 55 60
 Gly Asn Ile Gly Ile Arg Ile Lys Pro Val Arg Pro Val Ser Leu Phe
 65 70 75 80
 Met Cys Tyr Glu Gly Asp Pro Glu Lys Thr Ala Lys Val Glu Cys Gly
 85 90 95
 Asp Phe Tyr Asn Thr Gly Asp Arg Gly Lys Met Asp Glu Glu Gly Tyr
 100 105 110
 Ile Cys Phe Leu Gly Arg Ser Asp Asp Ile Ile Asn Ala Ser Gly Tyr
 115 120 125
 Arg Ile Gly Pro Ala Glu Val Glu Ser Ala Leu Val Glu His Pro Ala
 130 135 140
 Val Ala Glu Ser Ala Val Val Gly Ser Pro Asp Pro Ile Arg Gly Glu
 145 150 155 160
 Val Val Lys Ala Phe Ile Val Leu Thr Pro Gln Phe Leu Ser His Asp
 165 170 175
 Lys Asp Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr
 180 185 190
 Ala Pro Tyr Lys Tyr Pro Arg Lys Val Glu Phe Val Ser Glu Leu Pro
 195 200 205
 Lys Thr Ile Thr Gly Lys Ile Glu Arg Lys Glu Leu Arg Lys Lys Glu
 210 215 220
 Thr Gly Gln Met *
 225 228

<210> 1686
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 1686

```

Met Lys Ile Lys Pro Gly Phe Met Gly Lys Ala Thr Pro Pro Tyr Asp
 1           5           10           15
Val Gln Val Ile Asp Asp Lys Gly Ser Ile Leu Pro Pro Asn Thr Glu
          20           25           30
Gly Asn Ile Gly Ile Arg Ile Lys Pro Val Arg Pro Val Ser Leu Phe
          35           40           45
Met Cys Tyr Glu Gly Asp Pro Glu Lys Thr Ala Lys Val Glu Cys Gly
          50           55           60
Asp Phe Tyr Asn Thr Gly Asp Arg Gly Lys Met Asp Glu Glu Gly Tyr
          65           70           75           80
Ile Cys Phe Leu Gly Arg Ser Asp Asp Ile Ile Asn Ala Ser Gly Tyr
          85           90           95
Arg Ile Gly Pro Ala Glu Val Glu Ser Ala Leu Val Glu His Pro Ala
          100          105          110
Val Ala Glu Ser Ala Val Val Gly Ser Pro Asp Pro Ile Arg Gly Glu
          115          120          125
Val Val Lys Ala Phe Ile Val Leu Thr Pro Gln Phe Leu Ser His Asp
          130          135          140
Lys Asp Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr
          145          150          155          160
Ala Pro Tyr Lys Tyr Pro Arg Lys Val Glu Phe Val Ser Glu Leu Pro
          165          170          175
Lys Thr Ile Thr Gly Lys Ile Glu Arg Lys Glu Leu Arg Lys Lys Glu
          180          185          190
Thr Gly Gln Met
          195 196

```

<210> 1687

<211> 703

<212> PRT

<213> Homo sapiens

<400> 1687

```

Met Val Ala His Ile Asn Asn Ser Arg Leu Lys Ala Lys Gly Val Gly
 1           5           10           15
Gln His Asp Asn Ala Gln Asn Phe Gly Asn Gln Ser Phe Glu Glu Leu
          20           25           30
Arg Ala Ala Cys Leu Arg Lys Gly Glu Leu Phe Glu Asp Pro Leu Phe
          35           40           45
Pro Ala Glu Pro Ser Ser Leu Gly Phe Lys Asp Leu Gly Pro Asn Ser
          50           55           60
Lys Asn Val Gln Asn Ile Ser Trp Gln Arg Pro Lys Asp Ile Ile Asn
          65           70           75           80
Asn Pro Leu Phe Ile Met Asp Gly Ile Ser Pro Thr Asp Ile Cys Gln
          85           90           95
Gly Ile Leu Gly Asp Cys Trp Leu Leu Ala Ala Ile Gly Ser Leu Thr
          100          105          110
Thr Cys Pro Lys Leu Leu Tyr Arg Val Val Pro Arg Gly Gln Ser Phe
          115          120          125
Lys Lys Asn Tyr Ala Gly Ile Phe His Phe Gln Ile Trp Gln Phe Gly
          130          135          140
Gln Trp Val Asn Val Val Val Asp Asp Arg Leu Pro Thr Lys Asn Asp
          145          150          155          160
Lys Leu Val Phe Val His Ser Thr Glu Arg Ser Glu Phe Trp Ser Ala
          165          170          175
Leu Leu Glu Lys Ala Tyr Ala Lys Leu Ser Gly Ser Tyr Glu Ala Leu
          180          185          190
Ser Gly Gly Ser Thr Met Glu Gly Leu Glu Asp Phe Thr Gly Gly Val
          195          200          205

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Ala	Gln	Ser	Phe	Gln	Leu	Gln	Arg	Pro	Pro	Gln	Asn	Leu	Leu	Arg	Leu	210	215	220
Leu	Arg	Lys	Ala	Val	Glu	Arg	Ser	Ser	Leu	Met	Gly	Cys	Ser	Ile	Glu	225	230	235
Val	Thr	Ser	Asp	Ser	Glu	Leu	Glu	Ser	Met	Thr	Asp	Lys	Met	Leu	Val	245	250	255
Arg	Gly	His	Ala	Tyr	Ser	Val	Thr	Gly	Leu	Gln	Asp	Val	His	Tyr	Arg	260	265	270
Gly	Lys	Met	Glu	Thr	Leu	Ile	Arg	Val	Arg	Asn	Pro	Trp	Gly	Arg	Ile	275	280	285
Glu	Trp	Asn	Gly	Ala	Trp	Ser	Asp	Ser	Ala	Arg	Glu	Trp	Glu	Glu	Val	290	295	300
Ala	Ser	Asp	Ile	Gln	Met	Gln	Leu	Leu	His	Lys	Thr	Glu	Asp	Gly	Glu	305	310	315
Phe	Trp	Met	Ser	Tyr	Gln	Asp	Phe	Leu	Asn	Phe	Thr	Leu	Leu	Glu		325	330	335
Ile	Cys	Asn	Leu	Thr	Pro	Asp	Thr	Leu	Ser	Gly	Asp	Tyr	Lys	Ser	Tyr	340	345	350
Trp	His	Thr	Thr	Phe	Tyr	Glu	Gly	Ser	Trp	Arg	Arg	Gly	Ser	Ser	Ala	355	360	365
Gly	Gly	Cys	Arg	Asn	His	Pro	Gly	Thr	Phe	Trp	Thr	Asn	Pro	Gln	Phe	370	375	380
Lys	Ile	Ser	Leu	Pro	Glu	Gly	Asp	Asp	Pro	Glu	Asp	Asp	Ala	Glu	Gly	385	390	395
Asn	Val	Val	Val	Cys	Thr	Cys	Leu	Val	Ala	Leu	Met	Gln	Lys	Asn	Trp	405	410	415
Arg	His	Ala	Arg	Gln	Gln	Gly	Ala	Gln	Leu	Gln	Thr	Ile	Gly	Phe	Val	420	425	430
Leu	Tyr	Ala	Val	Pro	Lys	Glu	Phe	Gln	Asn	Ile	Gln	Asp	Val	His	Leu	435	440	445
Lys	Lys	Glu	Phe	Phe	Thr	Lys	Tyr	Gln	Asp	His	Gly	Phe	Ser	Glu	Ile	450	455	460
Phe	Thr	Asn	Ser	Arg	Glu	Val	Ser	Ser	Gln	Leu	Arg	Leu	Pro	Pro	Gly	465	470	475
Glu	Tyr	Ile	Ile	Ile	Pro	Ser	Thr	Phe	Glu	Pro	His	Arg	Asp	Ala	Asp	485	490	495
Phe	Leu	Leu	Arg	Val	Phe	Thr	Glu	Lys	His	Ser	Glu	Ser	Trp	Glu	Leu	500	505	510
Asp	Glu	Val	Asn	Tyr	Ala	Glu	Gln	Leu	Gln	Glu	Glu	Lys	Val	Ser	Glu	515	520	525
Asp	Asp	Met	Asp	Gln	Asp	Phe	Leu	His	Leu	Phe	Lys	Ile	Val	Ala	Gly	530	535	540
Glu	Gly	Lys	Glu	Ile	Gly	Val	Tyr	Glu	Leu	Gln	Arg	Leu	Leu	Asn	Arg	545	550	555
Met	Ala	Ile	Lys	Phe	Lys	Ser	Phe	Lys	Thr	Lys	Gly	Phe	Gly	Leu	Asp	565	570	575
Ala	Cys	Arg	Cys	Met	Ile	Asn	Leu	Met	Asp	Lys	Asp	Gly	Ser	Gly	Lys	580	585	590
Leu	Gly	Leu	Leu	Glu	Phe	Lys	Ile	Leu	Trp	Lys	Lys	Leu	Lys	Lys	Trp	595	600	605
Met	Asp	Ile	Phe	Arg	Glu	Cys	Asp	Gln	Asp	His	Ser	Gly	Thr	Leu	Asn	610	615	620
Ser	Tyr	Glu	Met	Arg	Leu	Val	Ile	Glu	Lys	Ala	Gly	Ile	Lys	Leu	Asn	625	630	635
Asn	Lys	Val	Met	Gln	Val	Leu	Val	Ala	Arg	Tyr	Ala	Asp	Asp	Asp	Leu	645	650	655
Ile	Ile	Asp	Phe	Asp	Ser	Phe	Ile	Ser	Cys	Phe	Leu	Arg	Leu	Lys	Thr	660	665	670
Met	Phe	Thr	Phe	Phe	Leu	Thr	Met	Asp	Pro	Lys	Asn	Thr	Gly	His	Ile	675	680	685
Cys	Leu	Ser	Leu	Glu	Gln	Trp	Leu	Gln	Met	Thr	Met	Trp	Gly	*		690	695	700
																		702

<210> 1688
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 1688
 Met Leu Ser Gly Asp Pro His Leu Pro Gln Pro Leu Cys His Cys Leu
 1 5 10 15
 Asp His Cys Pro Cys Cys Phe Ser Gly Thr Thr Arg Thr Ser *
 20 25 30

<210> 1689
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 1689
 Met Thr Tyr Ile Lys Ser Pro Ala Pro Cys Gln Thr Gln Thr Cys Tyr
 1 5 10 15
 Val Gln Gly Ala Ser Pro Cys Gln Ser Tyr Tyr Val Gln Ala Pro Ala
 20 25 30
 Ser Gly Ser Thr Ser Gln Tyr Cys Val Thr Asp Pro Cys Ser Ala Pro
 35 40 45
 Cys Ser Thr Ser Tyr Cys Cys Leu Ala Pro Arg Thr Phe Gly Val Ser
 50 55 60
 Pro Leu Arg Arg Trp Ile Gln Arg Pro Gln Asn Cys Asn Thr Gly Ser
 65 70 75 80
 Ser Gly Cys Cys Glu Asn Ser Gly Ser Ser Gly Cys Cys Gly Ser Gly
 85 90 95
 Gly Cys Gly Cys Ser Cys Gly Cys Gly Ser Ser Gly Cys Cys Cys Leu
 100 105 110
 Gly Ile Ile Pro Met Lys Ser Arg Ser Pro Ala Leu Leu
 115 120 125

<210> 1690
 <211> 472
 <212> PRT
 <213> Homo sapiens

<400> 1690
 Met Thr Ser Phe Tyr Ser Thr Ser Ser Cys Pro Leu Gly Cys Thr Met
 1 5 10 15
 Ala Pro Gly Ala Arg Asn Val Phe Val Ser Pro Ile Asp Val Gly Cys
 20 25 30
 Gln Pro Val Ala Glu Ala Asn Ala Ala Ser Met Cys Leu Leu Ala Asn
 35 40 45
 Val Ala His Ala Asn Arg Val Arg Val Gly Ser Thr Pro Leu Gly Arg
 50 55 60
 Pro Ser Leu Cys Leu Pro Thr Ser His Thr Ala Cys Pro Leu Pro
 65 70 75 80
 Gly Thr Cys His Ile Pro Gly Asn Ile Gly Ile Cys Gly Ala Tyr Gly
 85 90 95
 Lys Asn Thr Leu Asn Gly His Glu Lys Glu Thr Met Lys Phe Leu Asn
 100 105 110
 Asp Arg Leu Ala Asn Tyr Leu Glu Lys Val Arg Gln Leu Glu Gln Glu
 115 120 125

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Asn Ala Glu Leu Glu Thr Thr Leu Leu Glu Arg Ser Lys Cys His Glu
130 135 140
Ser Thr Val Cys Pro Asp Tyr Gln Ser Tyr Phe Arg Thr Ile Glu Glu
145 150 155 160
Leu Gln Gln Lys Ile Leu Cys Ser Lys Ala Glu Asn Ala Arg Leu Ile
165 170 175
Val Gln Ile Asp Asn Ala Lys Leu Ala Ala Asp Asp Phe Arg Ile Lys
180 185 190
Leu Glu Ser Glu Arg Ser Leu His Gln Leu Val Glu Ala Asp Lys Cys
195 200 205
Gly Thr Gln Lys Leu Leu Asp Asp Ala Thr Leu Ala Lys Ala Asp Leu
210 215 220
Glu Ala Gln Gln Glu Ser Leu Lys Glu Glu Gln Leu Ser Leu Lys Ser
225 230 235 240
Asn His Glu Gln Glu Val Lys Ile Leu Arg Ser Gln Leu Gly Glu Lys
245 250 255
Phe Arg Ile Glu Leu Asp Ile Glu Pro Thr Ile Asp Leu Asn Arg Val
260 265 270
Leu Gly Glu Met Arg Ala Gln Tyr Glu Ala Met Val Glu Thr Asn His
275 280 285
Gln Asp Val Glu Gln Trp Phe Gln Ala Gln Ser Glu Gly Ile Ser Leu
290 295 300
Gln Ala Met Ser Cys Ser Glu Glu Leu Gln Cys Cys Gln Ser Glu Ile
305 310 315 320
Leu Glu Leu Arg Cys Thr Val Asn Ala Leu Glu Val Glu Arg Gln Ala
325 330 335
Gln His Thr Leu Lys Asp Cys Leu Gln Asn Ser Leu Cys Glu Ala Glu
340 345 350
Asp Arg Tyr Gly Thr Glu Leu Ala Gln Met Gln Ser Leu Ile Ser Asn
355 360 365
Leu Glu Glu Gln Leu Ser Glu Ile Arg Ala Asp Leu Glu Arg Gln Asn
370 375 380
Gln Glu Tyr Gln Val Leu Leu Asp Val Lys Ala Arg Leu Glu Asn Glu
385 390 395 400
Ile Ala Thr Tyr Arg Asn Leu Thr Pro Leu Gln Ser Leu Phe His Ala
405 410 415
Cys Leu Leu Tyr Phe Leu Ser Lys Leu Trp Pro Cys His Arg Trp Val
420 425 430
Ser Leu Trp Pro Trp Ser Gln His Gly Glu Met Ile Leu Lys Ala Arg
435 440 445
Val Arg Arg Leu Arg Leu Val Ala Leu Gly Ser Gly Val Pro Ser Pro
450 455 460
Cys Pro Val Phe Leu Gln Asp *
465 470 471

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<210> 1691
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 1691
 Met Ser Cys Gln Gln Ser Gln Gln Gln Cys Gln Pro Pro Pro Lys Cys
 1 5 10 15
 Thr Pro Lys Cys Pro Pro Lys Cys Thr Pro Lys Cys Pro Pro Lys Cys
 20 25 30
 Pro Pro Lys Cys Pro Pro Gln Tyr Ser Ala Pro Cys Pro Pro Pro Val
 35 40 45
 Ser Ser Cys Cys Gly Ser Ser Ser Gly Gly Cys Cys Ser Ser Glu Gly
 50 55 60
 Gly Gly Cys Cys Leu Ser His His Arg Pro Arg Gln Ser Leu Arg Arg
 65 70 75 80

Arg Pro Gln Ser Ser Ser Cys Cys Gly Ser Gly Ser Gly Gln Gln Ser
 85 90 95
 Gly Gly Ser Ser Cys Cys His Ser Ser Gly Gly Ser Gly Cys Cys His
 100 105 110
 Ser Ser Gly Gly Cys Cys *
 115 118

<210> 1692
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 1692
 Met Lys Trp Val Gln Phe Ser Asn Leu His Val Asp Val Pro Lys Asp
 1 5 10 15
 Leu Thr Lys Pro Val Val Thr Ile Ser Asp Glu Pro Asp Ile Leu Tyr
 20 25 30
 Lys Arg Leu Ser Val Leu Val Lys Gly His Asp Lys Ala Val Leu Asp
 35 40 45
 Ser Tyr Glu Tyr Phe Ala Val Leu Ala Ala Lys Glu Leu Gly Ile Ser
 50 55 60
 Ile Lys Val His Glu Pro Pro Arg Lys Ile Glu Arg Phe Thr Leu Leu
 65 70 75 80
 Gln Ser Val His Ile Tyr Lys Lys His Arg Val Gln Tyr Glu Met Arg
 85 90 95
 Thr Leu Tyr Arg Cys Leu Glu Leu Glu His Leu Thr Gly Ser Thr Ala
 100 105 110
 Asp Val Tyr Leu Glu Tyr Ile Gln Arg Asn Leu Pro Glu Gly Val Ala
 115 120 125
 Met Glu Val Thr Lys Phe Cys Phe Phe Ile Phe Leu Asp Thr Ile Arg
 130 135 140
 Thr Val Thr Arg Thr His Gln Gly Ala Asn Leu Gly Asn Thr Ile Arg
 145 150 155 160
 Arg Lys Arg Arg Lys Gln Val Ile Lys Pro Gln Gly Gly His Phe Cys
 165 170 175
 Leu Asn Leu Lys *
 180

<210> 1693
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 1693
 Met Ser Cys Gln Gln Asn Gln Gln Gln Cys Gln Pro Pro Pro Lys Cys
 1 5 10 15
 Pro Ile Pro Lys Tyr Pro Pro Lys Cys Pro Ser Lys Cys Ala Ser Ser
 20 25 30
 Cys Pro Pro Pro Ile Ser Ser Cys Cys Gly Ser Ser Ser Gly Gly Cys
 35 40 45
 Cys Ser Ser Gly Gly Cys Gly Cys Cys Ser Ser Glu Gly Gly Gly Cys
 50 55 60
 Cys Leu Ser His His Arg His His Arg Ser His Cys His Arg Pro Lys
 65 70 75 80
 Ser Ser Asn Cys Tyr Gly Ser Gly Ser Gly Gln Gln Ser Gly Gly Ser
 85 90 95
 Gly Cys Cys Ser Gly Gly Gly Cys Cys *
 100 105

<210> 1694
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 1694
 Met Leu Lys Lys Pro Leu Ser Ala Val Thr Trp Leu Cys Ile Phe Ile
 1 5 10 15
 Val Ala Phe Val Ser His Pro Ala Trp Leu Gln Lys Leu Ser Lys His
 20 25 30
 Lys Thr Pro Ala Gln Pro Gln Leu Lys Ala Ala Asn Cys Cys Glu Glu
 35 40 45
 Val Lys Glu Leu Lys Ala Gln Val Ala Asn Leu Ser Ser Leu Leu Ser
 50 55 60
 Glu Leu Asn Lys Lys Gln Glu Arg Asp Trp Val Ser Val Val Met Gln
 65 70 75 80
 Val Met Glu Leu Glu Ser Asn Ser Lys Arg Met Glu Ser Arg Leu Thr
 85 90 95
 Asp Ala Glu Ser Lys Tyr Ser Glu Met Asn Asn Gln Ile Asp Ile Met
 100 105 110
 Gln Leu Gln Ala Ala Gln Thr Val Thr Gln Thr Ser Ala Asp Ala Ile
 115 120 125
 Tyr Asp Cys Ser Ser Leu Tyr Gln Lys Asn Tyr Arg Ile Ser Gly Val
 130 135 140
 Tyr Lys Leu Pro Pro Asp Phe Leu Gly Ser Pro Glu Leu Glu Val
 145 150 155 160
 Phe Cys Asp Met Glu Thr Ser Gly Gly Gly Trp Thr Ile Ile Gln Arg
 165 170 175
 Arg Lys Ser Gly Leu Val Ser Phe Tyr Arg Asp Trp Lys Gln Tyr Lys
 180 185 190
 Gln Gly Phe Gly Ser Ile Arg Gly Asp Phe Trp Leu Gly Asn Glu His
 195 200 205
 Ile His Arg Leu Ser Arg Gln Pro Thr Arg Leu Arg Val Glu Met Glu
 210 215 220
 Asp Trp Glu Gly Asn Leu Arg Tyr Ala Glu Tyr Ser His Phe Val Leu
 225 230 235 240
 Gly Asn Glu Leu Asn Ser Tyr Arg Leu Phe Leu Gly Asn Tyr Thr Gly
 245 250 255
 Asn Val Gly Asn Asp Ala Leu Gln Tyr His Asn Asn Thr Ala Phe Ser
 260 265 270
 Thr Lys Asp Lys Asp Asn Asp Asn Cys Leu Asp Lys Cys Ala Gln Leu
 275 280 285
 Arg Lys Gly Gly Tyr Trp Tyr Asn Cys Cys Thr Asp Ser Asn Leu Asn
 290 295 300
 Gly Val Tyr Tyr Arg Leu Gly Glu His Asn Lys His Leu Asp Gly Ile
 305 310 315 320
 Thr Trp Tyr Gly Trp His Gly Ser Thr Tyr Ser Leu Lys Arg Val Glu
 325 330 335
 Met Lys Ile Arg Pro Glu Asp Phe Lys Pro *
 340 345 346

<210> 1695
 <211> 455
 <212> PRT
 <213> Homo sapiens

<400> 1695


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Met Tyr Asn Thr Val Trp Asn Met Glu Asp Leu Asp Leu Glu Tyr Ala
 1          5          10          15
Lys Thr Asp Ile Asn Cys Gly Thr Asp Leu Met Phe Tyr Ile Glu Met
          20          25          30
Asp Pro Pro Ala Leu Pro Pro Lys Pro Pro Lys Pro Thr Thr Val Ala
          35          40          45
Asn Asn Gly Met Asn Asn Asn Met Ser Leu Gln Asp Ala Glu Trp Tyr
          50          55          60
Trp Gly Asp Ile Ser Arg Glu Glu Val Asn Glu Lys Leu Arg Asp Thr
          65          70          75          80
Ala Asp Gly Thr Phe Leu Val Arg Asp Ala Ser Thr Lys Met His Gly
          85          90          95
Asp Tyr Thr Leu Thr Leu Arg Lys Gly Gly Asn Asn Lys Leu Ile Lys
          100          105          110
Ile Phe His Arg Asp Gly Lys Tyr Gly Phe Ser Asp Pro Leu Thr Phe
          115          120          125
Ser Ser Val Val Glu Leu Ile Asn His Tyr Arg Asn Glu Ser Leu Ala
          130          135          140
Gln Tyr Asn Pro Lys Leu Asp Val Lys Leu Leu Tyr Pro Val Ser Lys
          145          150          155          160
Tyr Gln Gln Asp Gln Val Val Lys Glu Asp Asn Ile Glu Ala Val Gly
          165          170          175
Lys Lys Leu His Glu Tyr Asn Thr Gln Phe Gln Glu Lys Ser Arg Glu
          180          185          190
Tyr Asp Arg Leu Tyr Glu Glu Tyr Thr Arg Thr Ser Gln Glu Ile Gln
          195          200          205
Met Lys Arg Thr Ala Ile Glu Ala Phe Asn Glu Thr Ile Lys Ile Phe
          210          215          220
Glu Glu Gln Cys Gln Thr Gln Glu Arg Tyr Ser Lys Glu Tyr Ile Glu
          225          230          235          240
Lys Phe Lys Arg Glu Gly Asn Glu Lys Glu Ile Gln Arg Ile Met His
          245          250          255
Asn Tyr Asp Lys Leu Lys Ser Arg Ile Ser Glu Ile Ile Asp Ser Arg
          260          265          270
Arg Arg Leu Glu Glu Asp Leu Lys Lys Gln Ala Ala Glu Tyr Arg Glu
          275          280          285
Ile Asp Lys Arg Met Asn Ser Ile Lys Pro Asp Leu Ile Gln Leu Arg
          290          295          300
Lys Thr Arg Asp Gln Tyr Leu Met Trp Leu Thr Gln Lys Gly Val Arg
          305          310          315          320
Gln Lys Lys Leu Asn Glu Trp Leu Gly Asn Glu Asn Thr Glu Asp Gln
          325          330          335
Tyr Ser Leu Val Glu Asp Asp Glu Asp Leu Pro His His Asp Glu Lys
          340          345          350
Thr Trp Asn Val Gly Ser Ser Asn Arg Asn Lys Ala Glu Asn Leu Leu
          355          360          365
Arg Gly Lys Arg Asp Gly Thr Phe Leu Val Arg Glu Ser Ser Lys Gln
          370          375          380
Gly Cys Tyr Ala Cys Ser Val Val Val Asp Gly Glu Val Lys His Cys
          385          390          395          400
Val Ile Asn Lys Thr Ala Thr Gly Tyr Gly Phe Ala Glu Pro Tyr Asn
          405          410          415
Leu Tyr Ser Ser Leu Lys Glu Leu Val Leu His Tyr Gln His Thr Ser
          420          425          430
Leu Val Gln His Asn Asp Ser Leu Asn Val Thr Leu Ala Tyr Pro Val
          435          440          445
Tyr Ala Gln Gln Arg Arg *
          450          454

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<210> 1696

<211> 46

<212> PRT

<213> Homo sapiens

<400> 1696

```

Met Leu Asp Leu Gly Ala Ala Lys Ala Asn Leu Glu Lys Ala Gln Ala
 1           5           10           15
Glu Leu Val Gly Thr Ala Asp Glu Ala Thr Arg Ala Glu Ile Gln Ile
          20           25           30
Arg Ile Glu Ala Asn Glu Ala Leu Val Lys Ala Leu Glu *
        35           40           45

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<210> 1697

<211> 367

<212> PRT

<213> Homo sapiens

<400> 1697

```

Met Ala Pro Asn Leu Lys Gly Arg Pro Arg Lys Lys Lys Pro Cys Pro
 1           5           10           15
Gln Arg Arg Asp Ser Phe Ser Gly Val Lys Asp Ser Asn Asn Asn Ser
          20           25           30
Asp Gly Lys Ala Val Ala Lys Val Lys Cys Glu Ala Arg Ser Ala Leu
        35           40           45
Thr Lys Pro Lys Asn Asn His Asn Cys Lys Lys Val Ser Asn Glu Glu
        50           55           60
Lys Pro Lys Val Ala Ile Gly Glu Glu Cys Arg Ala Asp Glu Gln Ala
        65           70           75           80
Phe Leu Val Ala Leu Tyr Lys Tyr Met Lys Glu Arg Lys Thr Pro Ile
          85           90           95
Glu Arg Ile Pro Tyr Leu Gly Phe Lys Gln Ile Asn Leu Trp Thr Met
          100          105          110
Phe Gln Ala Ala Gln Lys Leu Gly Gly Tyr Glu Thr Ile Thr Ala Arg
          115          120          125
Arg Gln Trp Lys His Ile Tyr Asp Glu Leu Gly Gly Asn Pro Gly Ser
          130          135          140
Thr Ser Ala Ala Thr Cys Thr Arg Arg His Tyr Glu Arg Leu Ile Leu
          145          150          155          160
Pro Tyr Glu Arg Phe Ile Lys Gly Glu Glu Asp Lys Pro Leu Pro Pro
          165          170          175
Ile Lys Pro Arg Lys Gln Glu Asn Ser Ser Gln Glu Asn Glu Asn Lys
          180          185          190
Thr Lys Val Ser Gly Thr Lys Arg Ile Lys His Glu Ile Pro Lys Ser
          195          200          205
Lys Lys Glu Lys Glu Asn Ala Pro Lys Pro Gln Asp Ala Ala Glu Val
          210          215          220
Ser Ser Glu Gln Glu Lys Glu Gln Glu Thr Leu Ile Ser Gln Lys Ser
          225          230          235          240
Ile Pro Glu Pro Leu Pro Ala Ala Asp Met Lys Lys Lys Ile Glu Gly
          245          250          255
Tyr Gln Glu Phe Ser Ala Lys Pro Leu Ala Ser Arg Val Asp Pro Glu
          260          265          270
Lys Asp Asn Glu Thr Asp Gln Gly Ser Asn Ser Glu Lys Val Ala Glu
          275          280          285
Glu Ala Gly Glu Lys Gly Pro Thr Pro Pro Leu Pro Ser Ala Pro Leu
          290          295          300
Ala Pro Glu Lys Asp Ser Ala Leu Val Pro Gly Ala Ser Lys Gln Pro
          305          310          315          320
Leu Thr Ser Pro Ser Ala Leu Val Asp Ser Lys Gln Glu Ser Lys Leu
          325          330          335
Cys Cys Phe Thr Glu Ser Pro Glu Ser Glu Pro Gln Glu Ala Ser Phe
          340          345          350

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Pro Ser Phe Pro Thr Thr Gln Ala Thr Ala Gly Lys Pro Glu *
 355 360 365 366

<210> 1698
 <211> 456
 <212> PRT
 <213> Homo sapiens

<400> 1698
 Met Cys Thr Lys Thr Ile Pro Val Leu Trp Gly Cys Phe Leu Leu Trp
 1 5 10 15
 Asn Leu Tyr Val Ser Ser Ser Gln Thr Ile Tyr Pro Gly Ile Lys Ala
 20 25 30
 Arg Ile Thr Gln Arg Ala Leu Asp Tyr Gly Val Gln Ala Gly Met Lys
 35 40 45
 Met Ile Glu Gln Met Leu Lys Glu Lys Lys Leu Pro Asp Leu Ser Gly
 50 55 60
 Ser Glu Ser Leu Glu Phe Leu Lys Val Asp Tyr Val Asn Tyr Asn Phe
 65 70 75 80
 Ser Asn Ile Lys Ile Ser Ala Phe Ser Phe Pro Asn Thr Ser Leu Ala
 85 90 95
 Phe Val Pro Gly Val Gly Ile Lys Ala Leu Thr Asn His Gly Thr Ala
 100 105 110
 Asn Ile Ser Thr Asp Trp Gly Phe Glu Ser Pro Leu Phe Val Leu Tyr
 115 120 125
 Asn Ser Phe Ala Glu Pro Met Glu Lys Pro Ile Leu Lys Asn Leu Asn
 130 135 140
 Glu Met Leu Cys Pro Ile Ile Ala Ser Glu Val Lys Ala Leu Asn Ala
 145 150 155 160
 Asn Leu Ser Thr Leu Glu Val Leu Thr Lys Ile Asp Asn Tyr Thr Leu
 165 170 175
 Leu Asp Tyr Ser Leu Ile Ser Ser Pro Glu Ile Thr Glu Asn Tyr Leu
 180 185 190
 Asp Leu Asn Leu Lys Gly Val Phe Tyr Pro Leu Glu Asn Leu Thr Asp
 195 200 205
 Pro Pro Phe Ser Pro Val Pro Phe Val Leu Pro Glu Arg Ser Asn Ser
 210 215 220
 Met Leu Tyr Ile Gly Ile Ala Glu Tyr Phe Phe Lys Ser Ala Ser Phe
 225 230 235 240
 Ala His Phe Thr Ala Gly Val Phe Asn Val Thr Leu Ser Thr Glu Glu
 245 250 255
 Ile Ser Asn His Phe Val Gln Asn Ser Gln Gly Leu Gly Asn Val Leu
 260 265 270
 Ser Arg Ile Ala Glu Ile Tyr Ile Leu Ser Gln Pro Phe Met Val Arg
 275 280 285
 Ile Met Ala Thr Glu Pro Pro Ile Ile Asn Leu Gln Pro Gly Asn Phe
 290 295 300
 Thr Leu Asp Ile Pro Ala Ser Ile Met Met Leu Thr Gln Pro Lys Asn
 305 310 315 320
 Ser Thr Val Glu Thr Ile Val Ser Met Asp Phe Val Ala Ser Thr Ser
 325 330 335
 Val Gly Leu Val Ile Leu Gly Gln Arg Leu Val Cys Ser Leu Ser Leu
 340 345 350
 Asn Arg Phe Arg Leu Ala Leu Pro Glu Ser Asn Arg Ser Asn Ile Glu
 355 360 365
 Val Leu Arg Phe Glu Asn Ile Leu Ser Ser Ile Leu His Phe Gly Val
 370 375 380
 Leu Pro Leu Ala Asn Ala Lys Leu Gln Gln Gly Phe Pro Leu Pro Asn
 385 390 395 400
 Pro His Lys Phe Leu Phe Val Asn Ser Asp Ile Glu Val Leu Glu Gly
 405 410 415

Phe Leu Leu Ile Ser Thr Asp Leu Lys Tyr Glu Thr Ser Ser Lys Gln
 420 425 430
 Gln Pro Ser Phe His Val Trp Glu Gly Leu Asn Leu Ile Ser Arg Gln
 435 440 445
 Trp Arg Gly Lys Ser Ala Pro *
 450 455

<210> 1699
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 1699
 Met Thr Gly Lys Thr Thr Lys Val Pro Asn Ala Cys Leu Phe Thr Ile
 1 5 10 15
 Asn Lys Glu Asp His Thr Leu Gly Asn Ile Ile Lys Ser Gln Leu Leu
 20 25 30
 Lys Asp Pro Gln Val Leu Phe Ala Gly Tyr Lys Val Pro His Pro Leu
 35 40 45
 Glu His Lys Ile Ile Ile Arg Val Gln Thr Thr Pro Asp Tyr Ser Pro
 50 55 60
 Gln Glu Ala Phe Thr Asn Ala Ile Thr Asp Leu Ile Ser Glu Leu Ser
 65 70 75 80
 Leu Leu Glu Glu Arg Phe Arg Thr Cys Leu Leu Pro Leu Arg Leu Leu
 85 90 95
 Pro *
 97

<210> 1700
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 1700
 Met Asn Lys Ser Gln Glu Gln Val Ser Phe Lys Asp Val Cys Val Asp
 1 5 10 15
 Phe Thr Gln Glu Trp Tyr Leu Leu Asp Pro Ala Gln Lys Ile Leu
 20 25 30
 Tyr Arg Asp Val Ile Leu Glu Asn Tyr Ser Asn Leu Val Ser Val Gly
 35 40 45
 Tyr Cys Ile Thr Lys Pro Glu Val Ile Phe Lys Ile Glu Gln Gly Glu
 50 55 60
 Glu Pro Trp Ile Leu Glu Lys Gly Phe Pro Ser Gln Cys Gln Pro Glu
 65 70 75 80
 Arg Glu Trp Glu Val Asp Asp Val Leu Glu Ser Ser Gln Glu His Glu
 85 90 95
 Asp Asp Pro Phe Trp Glu Leu Leu Phe Pro Asn Asn Lys Gln *
 100 105 110

<210> 1701
 <211> 300
 <212> PRT
 <213> Homo sapiens

<400> 1701

```

Met Ala Pro Ser Leu Leu Cys Pro Phe Thr Ala Met His Lys Thr Val
 1           5           10           15
Gly Arg Ala Ser Cys Ala Pro Pro Ser Trp Arg Met Glu Leu Arg Ser
           20           25           30
Gly Ser Val Gly Ser Gln Ala Val Ala Arg Arg Met Asp Gly Asp Ser
           35           40           45
Arg Asp Gly Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp Tyr Glu
           50           55           60
Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala Gly Ala
           65           70           75           80
Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp Ser Val
           85           90           95
Lys Thr Arg Met Gln Ser Leu Ser Pro Asp Pro Lys Ala Gln Tyr Thr
           100          105          110
Ser Val Tyr Gly Ala Leu Lys Lys Ile Met Arg Thr Glu Gly Phe Trp
           115          120          125
Arg Pro Leu Arg Gly Val Asn Val Met Ile Met Gly Ala Gly Pro Ala
           130          135          140
His Ala Met Tyr Phe Ala Cys Tyr Glu Asn Met Lys Arg Thr Leu Asn
           145          150          155          160
Asp Val Phe His His Gln Gly Asn Ser His Leu Ala Asn Gly Ile Ala
           165          170          175
Gly Ser Met Ala Thr Leu Leu His Asp Ala Val Met Asn Pro Ala Glu
           180          185          190
Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala
           195          200          205
Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe
           210          215          220
Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser
           225          230          235          240
Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His
           245          250          255
Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly
           260          265          270
Ala Leu Ala Ala Ala Ala Asn Ser Asp Pro Arg Glu Ile Ser Phe Phe
           275          280          285
Gly Phe Gly Gly Val Ser Ser Ser Ser Asn Arg *
           290          295          299

```

<210> 1702
 <211> 38
 <212> PRT
 <213> Homo sapiens

```

<400> 1702
Met Val Leu Leu Leu Ser Leu Thr Phe Phe Ser Ala Leu Thr Phe His
 1           5           10           15
Ser Ile Cys Gln Leu Arg Asn Thr Gly Val Glu Val Asp Ile Val Phe
           20           25           30
Gln Arg Val Ser Phe Leu
           35           38

```

<210> 1703
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 1703

```

Met Ser Ser Leu Pro Val Pro Tyr Lys Leu Pro Val Ser Leu Ser Val
 1          5          10          15
Gly Ser Cys Val Ile Ile Lys Gly Thr Pro Ile His Ser Phe Ile Asn
          20          25          30
Asp Pro Gln Leu Gln Val Asp Phe Tyr Thr Asp Met Asp Glu Asp Ser
          35          40          45
Asp Ile Ala Phe Arg Phe Arg Val His Phe Gly Asn His Val Val Met
          50          55          60
Asn Arg Arg Glu Phe Gly Ile Trp Met Leu Glu Glu Thr Thr Asp Tyr
          65          70          75          80
Val Pro Phe Glu Asp Gly Lys Gln Phe Glu Leu Cys Ile Tyr Val His
          85          90          95
Tyr Asn Glu Tyr Glu Ile Lys Val Asn Gly Ile Arg Ile Tyr Gly Phe
          100          105          110
Val His Arg Ile Pro Pro Ser Phe Val Lys Met Val Gln Val Ser Arg
          115          120          125
Asp Ile Ser Leu Thr Ser Val Cys Val Cys Asn *
          130          135          139

```

<210> 1704

<211> 380

<212> PRT

<213> Homo sapiens

<400> 1704

```

Met Ser Ser Pro Ser Leu Ser Asp Leu Gly Lys Arg Glu Pro Ala Ala
 1          5          10          15
Ala Ala Asp Glu Arg Gly Thr Gln Gln Arg Arg Ala Cys Ala Asn Ala
          20          25          30
Thr Trp Asn Ser Ile His Asn Gly Val Ile Ala Val Phe Gln Arg Lys
          35          40          45
Gly Leu Pro Asp Gln Glu Leu Phe Ser Leu Asn Glu Gly Val Arg Gln
          50          55          60
Leu Leu Lys Thr Glu Leu Gly Ser Phe Phe Thr Glu Tyr Leu Gln Asn
          65          70          75          80
Gln Leu Leu Thr Lys Gly Met Val Ile Leu Arg Asp Lys Ile Arg Phe
          85          90          95
Tyr Glu Gly Gln Lys Leu Leu Asp Ser Leu Ala Glu Thr Trp Asp Phe
          100          105          110
Phe Phe Ser Asp Val Leu Pro Met Leu Gln Ala Ile Phe Tyr Pro Val
          115          120          125
Gln Gly Lys Glu Pro Ser Val Arg Gln Leu Ala Leu Leu His Phe Arg
          130          135          140
Asn Ala Ile Thr Leu Ser Val Lys Leu Glu Asp Ala Leu Ala Arg Ala
          145          150          155          160
His Ala Arg Val Pro Pro Ala Ile Val Gln Met Leu Leu Val Leu Gln
          165          170          175
Gly Val His Glu Ser Arg Gly Val Thr Glu Asp Tyr Leu Arg Leu Glu
          180          185          190
Thr Leu Val Gln Lys Val Val Ser Pro Tyr Leu Gly Thr Tyr Gly Leu
          195          200          205
His Ser Ser Glu Gly Pro Phe Thr His Ser Cys Ile Leu Glu Lys Arg
          210          215          220
Leu Leu Arg Arg Ser Arg Gly Asp Val Leu Ala Lys Asn Pro Val
          225          230          235          240
Val Arg Ser Lys Ser Tyr Asn Thr Pro Leu Leu Asn Pro Val Gln Glu
          245          250          255
His Glu Ala Glu Gly Ala Ala Ala Gly Gly Thr Ser Ile Arg Arg His
          260          265          270
Ser Val Ser Glu Met Thr Ser Cys Pro Glu Pro Gln Gly Phe Ser Asp
          275          280          285

```

```

Pro Pro Gly Gln Gly Pro Thr Gly Thr Phe Arg Ser Ser Pro Ala Pro
 290                               295                 300
His Ser Gly Pro Cys Pro Ser Arg Leu Tyr Pro Thr Thr Gln Pro Pro
305                               310                 315                 320
Glu Gln Gly Leu Asp Pro Thr Arg Ser Ser Leu Pro Arg Ser Ser Pro
                               325                 330                 335
Glu Asn Leu Val Asp Gln Ile Leu Glu Ser Val Asp Ser Asp Ser Glu
                               340                 345                 350
Gly Ile Phe Ile Asp Phe Gly Arg Gly Arg Gly Ser Gly Met Ser Asp
                               355                 360                 365
Leu Glu Gly Ser Gly Gly Arg Gln Ser Val Val *
 370                               375                 379

```

```

<210> 1705
<211> 209
<212> PRT
<213> Homo sapiens

```

```

<400> 1705
Met Val Phe Tyr Phe Thr Ser Ser Ser Val Asn Ser Ser Ala Tyr Thr
 1                               5                               10                 15
Ile Tyr Met Gly Lys Asp Lys Tyr Glu Asn Glu Asp Leu Ile Lys His
                               20                 25                 30
Gly Trp Pro Glu Asp Ile Trp Phe His Val Asp Lys Leu Ser Ser Ala
                               35                 40                 45
His Val Tyr Leu Arg Leu His Lys Gly Glu Asn Ile Glu Asp Ile Pro
                               50                 55                 60
Lys Glu Val Leu Met Asp Cys Ala His Leu Val Lys Ala Asn Ser Ile
65                               70                 75                 80
Gln Gly Cys Lys Met Asn Asn Val Asn Val Val Tyr Thr Pro Trp Ser
                               85                 90                 95
Asn Leu Lys Lys Thr Ala Asp Met Asp Val Gly Gln Ile Gly Phe His
                               100                105                110
Arg Gln Lys Asp Val Lys Ile Val Thr Val Glu Lys Lys Val Asn Glu
                               115                120                125
Ile Leu Asn Arg Leu Glu Lys Thr Lys Val Glu Arg Phe Ser Asp Leu
130                               135                140
Ala Ala Glu Lys Glu Cys Arg Asp Arg Glu Glu Arg Asn Glu Lys Lys
145                               150                155                160
Ala Gln Ile Gln Glu Met Lys Lys Arg Glu Lys Glu Glu Met Lys Lys
                               165                170                175
Lys Arg Glu Met Asp Glu Leu Arg Ser Tyr Ser Ser Leu Met Lys Val
                               180                185                190
Glu Asn Met Ser Ser Asn Gln Asp Gly Asn Asp Ser Asp Glu Phe Met
195                               200                205                208
*
```

```

<210> 1706
<211> 87
<212> PRT
<213> Homo sapiens

```

```

<400> 1706
Met Val Phe Tyr Phe Thr Ser Ser Ser Val Asn Ser Ser Ala Tyr Thr
 1                               5                               10                 15
Ile Tyr Met Gly Lys Asp Lys Tyr Glu Asn Glu Asp Leu Ile Lys His
                               20                 25                 30

```

Gly Trp Pro Glu Asp Ile Trp Phe His Val Asp Lys Leu Ser Ser Ala
 35 40 45
 His Val Tyr Leu Arg Leu His Lys Gly Glu Asn Ile Glu Asp Ile Pro
 50 55 60
 Lys Glu Val Leu Met Asp Cys Ala His Leu Val Lys Ala Asn Ser Ile
 65 70 75 80
 Gln Gly Ala Ile His His *
 85 86

<210> 1707
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 1707
 Met Arg Val His Ile Ser Ser Cys Leu Lys Val Gln Glu Gln Met Ala
 1 5 10 15
 Asn Cys Pro Lys Phe Val Pro Val Val Pro Thr Ser Gln Pro Ile Pro
 20 25 30
 Ser Asn Ile Pro Asn Arg Ser Thr Phe Ala Cys Pro Tyr Cys Gly Ala
 35 40 45
 Arg Asn Leu Asp Gln Gln Glu Leu Val Lys His Cys Val Glu Ser His
 50 55 60
 Arg Ser Asp Pro Asn Arg Val Val Cys Pro Ile Cys Ser Ala Met Pro
 65 70 75 80
 Trp Gly Asp Pro Ser Tyr Lys Ser Ala Asn Phe Leu Gln His Leu Leu
 85 90 95
 His Arg His Lys Phe Ser Tyr Asp Thr Phe Val Asp Tyr Ser Ile Asp
 100 105 110
 Glu Glu Ala Ala Phe Gln Ala Ala Leu Ala Leu Ser Leu Ser Glu Asn
 115 120 125 128

<210> 1708
 <211> 583
 <212> PRT
 <213> Homo sapiens

<400> 1708
 Met Ile Ser Arg Tyr Thr Arg Lys Ala Val Pro Gln Ser Leu Glu Leu
 1 5 10 15
 Lys Gly Ile Thr Lys His Ala Leu Asn His His Pro Pro Pro Glu Lys
 20 25 30
 Leu Glu Glu Ile Ser Pro Thr Ser Asp Ser His Glu Lys Asp Thr Ser
 35 40 45
 Ser Gln Ser Lys Ser Asp Ile Thr Arg Glu Ser Ser Phe Thr Ser Ala
 50 55 60
 Asp Thr Gly Asn Ser Leu Ser Ala Phe Pro Ser Tyr Thr Gly Ala Gly
 65 70 75 80
 Ile Ser Thr Glu Gly Ser Ser Asp Phe Ser Trp Gly Tyr Gly Glu Leu
 85 90 95
 Asp Gln Asn Ala Thr Glu Lys Val Gln Thr Met Phe Thr Ala Ile Asp
 100 105 110
 Glu Leu Leu Tyr Glu Gln Lys Leu Ser Val His Thr Lys Ser Leu Gln
 115 120 125
 Glu Glu Cys Gln Gln Trp Thr Ala Ser Phe Pro His Leu Arg Ile Leu
 130 135 140

Gly Arg Gln Ile Ile Thr Pro Ser Glu Gly Tyr Arg Leu Tyr Pro Arg
 145 150 155 160
 Ser Pro Ser Ala Val Ser Ala Ser Tyr Glu Thr Thr Leu Ser Gln Glu
 165 170 175
 Arg Asp Ser Thr Ile Phe Gly Ile Arg Gly Lys Lys Leu His Phe Ser
 180 185 190
 Ser Ser Tyr Ala His Lys Ala Ser Ser Ile Ala Lys Ser Ser Ser Phe
 195 200 205
 Cys Ser Met Glu Arg Asp Glu Glu Asp Ser Ile Ile Val Ser Glu Gly
 210 215 220
 Ile Ile Glu Glu Tyr Leu Ala Phe Asp His Ile Asp Ile Glu Glu Gly
 225 230 235 240
 Phe His Gly Lys Lys Ser Glu Ala Ala Thr Glu Lys Gln Lys Leu Gly
 245 250 255
 Tyr Pro Pro Ile Ala Pro Phe Tyr Cys Met Lys Glu Asp Val Leu Ala
 260 265 270
 Tyr Val Phe Asp Ser Val Trp Cys Lys Val Val Ser Cys Met Glu Gln
 275 280 285
 Leu Thr Arg Ser His Trp Glu Gly Phe Ala Ser Asp Asp Glu Ser Asn
 290 295 300
 Val Ala Val Thr Arg Pro Asp Ser Glu Ser Ser Cys Val Leu Ser Glu
 305 310 315 320
 Leu His Pro Leu Val Leu Pro Arg Val Pro Gln Ser Lys Val Leu Tyr
 325 330 335
 Ile Thr Ser Asn Pro Met Ser Leu Cys Gln Ala Ser Arg His Gln Pro
 340 345 350
 Asn Val Asn Asp Leu Leu Val His Gly Met Pro Leu Gln Pro Arg Asn
 355 360 365
 Leu Ser Leu Met Asp Lys Leu Asp Leu Asp Asp Lys Leu Leu Met
 370 375 380
 Arg Pro Gly Ser Ser Thr Ile Leu Ser Thr Arg Asn Trp Pro Asn Arg
 385 390 395 400
 Ala Val Glu Phe Ser Thr Ser Ser Leu Ser Tyr Thr Val Gln Ser Thr
 405 410 415
 Arg Arg Arg Asn Pro Pro Pro Arg Thr Leu His Pro Ile Ser Thr Ser
 420 425 430
 His Ser Cys Ala Glu Thr Pro Arg Ser Val Glu Glu Ile Leu Arg Gly
 435 440 445
 Ala Arg Val Pro Val Ala Pro Asp Ser Leu Ser Ser Pro Ser Pro Thr
 450 455 460
 Pro Leu Ser Arg Asn Asn Leu Leu Pro Pro Ile Gly Thr Ala Glu Val
 465 470 475 480
 Glu His Val Ser Thr Val Gly Pro Gln Arg Gln Met Lys Pro His Gly
 485 490 495
 Asp Ser Ser Arg Ala Gln Ser Ala Val Val Asp Glu Pro Asn Tyr Gln
 500 505 510
 Gln Pro Gln Glu Arg Leu Leu Leu Pro Asp Phe Phe Pro Arg Pro Asn
 515 520 525
 Thr Thr Gln Ser Phe Leu Leu Asp Thr Gln Tyr Arg Arg Ser Cys Ala
 530 535 540
 Val Glu Tyr Pro His Gln Ala Arg Pro Gly Arg Gly Ser Ala Gly Pro
 545 550 555 560
 Gln Leu His Gly Ser Thr Lys Ser Gln Ser Gly Gly Arg Pro Val Ser
 565 570 575
 Arg Thr Arg Gln Gly Pro *
 580 582

<210> 1709

<211> 171

<212> PRT

<213> Homo sapiens

<400> 1709

```

Met Arg Leu Gln Gly Ala Ile Phe Val Leu Leu Pro His Leu Gly Pro
 1           5           10           15
Ile Leu Val Trp Leu Phe Thr Arg Asp His Met Ser Gly Trp Cys Glu
           20           25           30
Gly Pro Arg Met Leu Ser Trp Cys Pro Phe Tyr Lys Val Leu Leu Leu
           35           40           45
Val Gln Thr Ala Ile Tyr Ser Val Val Gly Tyr Ala Ser Tyr Leu Val
           50           55           60
Trp Lys Asp Leu Gly Gly Gly Leu Gly Trp Pro Leu Ala Leu Pro Leu
           65           70           75           80
Gly Leu Tyr Ala Val Gln Leu Thr Ile Ser Trp Thr Val Leu Val Leu
           85           90           95
Phe Phe Thr Val His Asn Pro Gly Leu Ala Leu Leu His Leu Leu Leu
           100          105          110
Leu Tyr Gly Leu Val Val Ser Thr Ala Leu Ile Trp His Pro Ile Asn
           115          120          125
Lys Leu Ala Ala Leu Leu Leu Leu Pro Tyr Leu Ala Trp Leu Thr Val
           130          135          140
Thr Ser Ala Leu Thr Tyr His Leu Trp Arg Asp Ser Leu Cys Pro Val
           145          150          155          160
His Gln Pro Gln Pro Thr Glu Lys Ser Asp *
           165          170

```

<210> 1710

<211> 384

<212> PRT

<213> Homo sapiens

<400> 1710

```

Met Asp Ile Pro Arg Ser Val Gln Asn Phe Arg Phe Phe Ala Ser Ser
 1           5           10           15
Ser Leu His His Thr Ser Glu Cys Thr Gln Met Asp His Leu Gly Cys
           20           25           30
Met His Tyr Thr Val Arg Ala Pro Gly Gly Val Ala Gly Leu Ile Ser
           35           40           45
Pro Trp Asn Leu Pro Leu Tyr Leu Leu Thr Trp Lys Ile Ala Pro Ala
           50           55           60
Met Ala Ala Gly Asn Thr Val Ile Ala Lys Pro Ser Glu Leu Thr Ser
           65           70           75           80
Val Thr Ala Trp Met Leu Cys Lys Leu Leu Asp Lys Ala Gly Val Pro
           85           90           95
Pro Gly Val Val Asn Ile Val Phe Gly Thr Gly Pro Arg Val Gly Glu
           100          105          110
Ala Leu Val Ser His Pro Glu Val Pro Leu Ile Ser Phe Thr Gly Ser
           115          120          125
Gln Pro Thr Ala Glu Arg Ile Thr Gln Leu Ser Ala Pro His Cys Lys
           130          135          140
Lys Leu Ser Leu Glu Leu Gly Gly Lys Asn Pro Ala Ile Ile Phe Glu
           145          150          155          160
Asp Ala Asn Leu Asp Glu Cys Ile Pro Ala Thr Val Arg Ser Ser Phe
           165          170          175
Ala Asn Gln Gly Glu Ile Cys Leu Cys Thr Ser Arg Ile Phe Val Gln
           180          185          190
Lys Ser Ile Tyr Ser Glu Phe Leu Lys Arg Phe Val Glu Ala Thr Arg
           195          200          205
Lys Trp Lys Val Gly Ile Pro Ser Asp Pro Leu Val Ser Ile Gly Ala
           210          215          220
Leu Ile Ser Lys Ala His Leu Glu Lys Val Arg Ser Tyr Val Lys Arg
           225          230          235          240

```

Ala	Leu	Ala	Glu	Gly	Ala	Gln	Ile	Trp	Cys	Gly	Glu	Gly	Val	Asp	Lys
				245					250					255	
Leu	Ser	Leu	Pro	Ala	Arg	Asn	Gln	Ala	Gly	Tyr	Phe	Met	Leu	Pro	Thr
			260					265					270		
Val	Ile	Thr	Asp	Ile	Lys	Asp	Glu	Ser	Cys	Cys	Met	Thr	Glu	Glu	Ile
		275				280						285			
Phe	Gly	Pro	Val	Thr	Cys	Val	Val	Pro	Phe	Asp	Ser	Glu	Glu	Glu	Val
	290					295					300				
Ile	Glu	Arg	Ala	Asn	Asn	Val	Lys	Tyr	Gly	Leu	Ala	Ala	Thr	Val	Trp
305					310					315				320	
Ser	Ser	Asn	Val	Gly	Arg	Val	His	Arg	Val	Ala	Lys	Lys	Leu	Gln	Ser
			325					330					335		
Gly	Leu	Val	Trp	Thr	Asn	Cys	Trp	Leu	Ile	Arg	Glu	Leu	Asn	Leu	Pro
		340					345					350			
Phe	Gly	Gly	Met	Lys	Ser	Ser	Gly	Ile	Gly	Arg	Glu	Gly	Ala	Lys	Asp
	355					360					365				
Ser	Tyr	Asp	Phe	Phe	Thr	Glu	Ile	Lys	Thr	Ile	Thr	Val	Lys	His	*
	370					375					380		383		

<210> 1711

<211> 566

<212> PRT

<213> Homo sapiens

<400> 1711

Met	Gly	Arg	Asn	Gln	Ser	Arg	Lys	Ala	Glu	Asn	Ser	Lys	Asn	Gln	Ser
1				5					10					15	
Ala	Ser	Ser	Thr	Pro	Lys	Asp	His	Ser	Ala	Ser	Pro	Ala	Thr	Glu	Gln
			20					25					30		
Ser	Trp	Met	Gly	Asn	Asp	Phe	Asp	Glu	Leu	Thr	Glu	Leu	Gly	Phe	Arg
	35				40						45				
Lys	Ser	Val	Met	Thr	Asn	Phe	Ser	Gln	Leu	Lys	Glu	Asp	Val	Arg	Thr
	50				55					60					
His	His	Lys	Glu	Ala	Lys	Asn	Leu	Glu	Lys	Arg	Leu	Asp	Lys	Trp	Leu
65				70					75					80	
Thr	Arg	Ile	Asn	Ser	Ile	Glu	Glu	Thr	Leu	Asn	Asp	Leu	Met	Glu	Leu
			85					90					95		
Lys	Thr	Met	Ala	Arg	Glu	Leu	Arg	Asp	Thr	Cys	Thr	Ser	Phe	Ser	Ser
		100					105						110		
Arg	Phe	Asp	Gln	Val	Glu	Glu	Gly	Glu	Ile	Gln	Thr	Thr	Ile	Arg	Glu
	115					120						125			
Tyr	Tyr	Glu	His	Leu	Tyr	Ala	Asn	Lys	Leu	Glu	Asn	Leu	Glu	Glu	Met
	130					135				140					
Asp	Lys	Phe	Leu	Asp	Thr	Tyr	Thr	Leu	Pro	Arg	Leu	Asn	Gln	Glu	Glu
145				150					155					160	
Val	Glu	Ser	Leu	Asn	Arg	Pro	Ile	Thr	Gly	Ser	Glu	Ile	Glu	Ala	Ile
			165					170					175		
Ile	Asn	Ser	Leu	Pro	Thr	Lys	Lys	Ile	Pro	Gly	Pro	Asp	Arg	Phe	Thr
		180						185					190		
Ala	Lys	Phe	Tyr	Gln	Arg	Tyr	Lys	Glu	Glu	Leu	Ser	Asn	Leu	Ile	His
	195					200						205			
Tyr	Leu	Gly	Leu	Ser	His	His	Leu	Leu	Ala	Leu	Asn	Phe	Ile	Ile	Val
	210					215					220				
Ser	Phe	Gly	Lys	Lys	Ser	Ala	Trp	Ser	Ser	Ala	Gln	Val	Lys	Val	Thr
225				230						235				240	
Asp	Thr	Asp	Phe	Asp	Gly	Val	Glu	Val	Arg	Val	Phe	Glu	Gly	Pro	Pro
			245					250					255		
Lys	Pro	Glu	Glu	Pro	Leu	Lys	Arg	Ser	Val	Val	Tyr	Ile	His	Gly	Gly
		260					265					270			
Gly	Trp	Ala	Leu	Ala	Ser	Ala	Lys	Ile	Arg	Tyr	Tyr	Asp	Glu	Leu	Cys
	275						280					285			

```

Thr Ala Met Ala Glu Glu Leu Asn Ala Val Ile Val Ser Ile Glu Tyr
 290                295                300
Arg Leu Val Pro Lys Val Tyr Phe Pro Glu Gln Ile His Asp Val Val
305                310                315                320
Arg Ala Thr Lys Tyr Phe Leu Lys Pro Glu Val Leu Gln Lys Tyr Met
                325                330                335
Val Asp Pro Gly Arg Ile Cys Ile Ser Gly Asp Ser Ala Gly Gly Asn
                340                345                350
Leu Ala Ala Ala Leu Gly Gln Gln Phe Thr Gln Asp Ala Ser Leu Lys
                355                360                365
Asn Lys Leu Lys Leu Gln Ala Leu Ile Tyr Pro Val Leu Gln Ala Leu
370                375                380
Asp Phe Asn Thr Pro Ser Tyr Gln Gln Asn Val Asn Thr Pro Ile Leu
385                390                395                400
Pro Arg Tyr Val Met Val Lys Tyr Trp Val Asp Tyr Phe Lys Gly Asn
                405                410                415
Tyr Asp Phe Val Gln Ala Met Ile Val Asn Asn His Thr Ser Leu Asp
                420                425                430
Val Glu Glu Ala Ala Ala Val Arg Ala Arg Leu Asn Trp Thr Ser Leu
                435                440                445
Leu Pro Ala Ser Phe Thr Lys Asn Tyr Lys Pro Val Val Gln Thr Thr
450                455                460
Gly Asn Ala Arg Ile Val Gln Glu Leu Pro Gln Leu Leu Asp Ala Arg
465                470                475                480
Ser Ala Pro Leu Ile Ala Asp Gln Ala Val Leu Gln Leu Leu Pro Lys
                485                490                495
Thr Tyr Ile Leu Thr Cys Glu His Asp Val Leu Arg Asp Asp Gly Ile
                500                505                510
Met Tyr Ala Lys Arg Leu Glu Ser Ala Gly Val Glu Val Thr Leu Asp
                515                520                525
His Phe Glu Asp Gly Phe His Gly Cys Met Ile Phe Thr Ser Trp Pro
530                535                540
Thr Asn Phe Ser Val Gly Ile Arg Thr Arg Asn Ser Tyr Ile Lys Trp
545                550                555                560
Leu Asp Gln Asn Leu *
                565

```

```

<210> 1712
<211> 623
<212> PRT
<213> Homo sapiens

```

```

<400> 1712
Met Arg Leu Leu Arg Arg Arg His Met Pro Leu Arg Leu Ala Met Val
 1                5                10                15
Gly Cys Ala Phe Val Leu Phe Leu Phe Leu Leu His Arg Asp Val Ser
                20                25                30
Ser Arg Glu Glu Ala Thr Glu Lys Pro Trp Leu Lys Ser Leu Val Ser
                35                40                45
Arg Lys Asp His Val Leu Asp Leu Met Leu Glu Ala Met Asn Asn Leu
                50                55                60
Arg Asp Ser Met Pro Lys Leu Gln Ile Arg Ala Pro Glu Ala Gln Gln
65                70                75                80
Thr Leu Phe Ser Ile Asn Gln Ser Cys Leu Pro Gly Phe Tyr Thr Pro
                85                90                95
Ala Glu Leu Lys Pro Phe Trp Glu Arg Pro Pro Gln Asp Pro Asn Ala
                100                105                110
Pro Gly Ala Asp Gly Lys Ala Phe Gln Lys Ser Lys Trp Thr Pro Leu
                115                120                125
Glu Thr Gln Glu Lys Glu Glu Gly Tyr Lys Lys His Cys Phe Asn Ala
130                135                140

```

Phe	Ala	Ser	Asp	Arg	Ile	Ser	Leu	Gln	Arg	Ser	Leu	Gly	Pro	Asp	Thr	145	150	155	160
Arg	Pro	Pro	Glu	Cys	Val	Asp	Gln	Lys	Phe	Arg	Arg	Cys	Pro	Pro	Leu	165	170		175
Ala	Thr	Thr	Ser	Val	Ile	Ile	Val	Phe	His	Asn	Glu	Ala	Trp	Ser	Thr	180	185		190
Leu	Leu	Arg	Thr	Val	Tyr	Ser	Val	Leu	His	Thr	Thr	Pro	Ala	Ile	Leu	195	200		205
Leu	Lys	Glu	Ile	Ile	Leu	Val	Asp	Asp	Ala	Ser	Thr	Glu	Glu	His	Leu	210	215		220
Lys	Glu	Lys	Leu	Glu	Gln	Tyr	Val	Lys	Gln	Leu	Gln	Val	Val	Arg	Val	225	230		235
Val	Arg	Gln	Glu	Glu	Arg	Lys	Gly	Leu	Ile	Thr	Ala	Arg	Leu	Leu	Gly	245	250		255
Ala	Ser	Val	Ala	Gln	Ala	Glu	Val	Leu	Thr	Phe	Leu	Asp	Ala	His	Cys	260	265		270
Glu	Cys	Phe	His	Gly	Trp	Leu	Glu	Pro	Leu	Leu	Ala	Arg	Ile	Ala	Glu	275	280		285
Asp	Lys	Thr	Val	Val	Val	Ser	Pro	Asp	Ile	Val	Thr	Ile	Asp	Leu	Asn	290	295		300
Thr	Phe	Glu	Phe	Ala	Lys	Pro	Val	Gln	Arg	Gly	Arg	Val	His	Ser	Arg	305	310		315
Gly	Asn	Phe	Asp	Trp	Ser	Leu	Thr	Phe	Gly	Trp	Glu	Thr	Leu	Pro	Pro	325	330		335
His	Glu	Lys	Gln	Arg	Arg	Lys	Asp	Glu	Thr	Tyr	Pro	Ile	Lys	Ser	Pro	340	345		350
Thr	Phe	Ala	Gly	Gly	Leu	Phe	Ser	Ile	Ser	Lys	Ser	Tyr	Phe	Glu	His	355	360		365
Ile	Gly	Thr	Tyr	Asp	Asn	Gln	Met	Glu	Ile	Trp	Gly	Gly	Glu	Asn	Val	370	375		380
Glu	Met	Ser	Phe	Arg	Val	Trp	Gln	Cys	Gly	Gly	Gln	Leu	Glu	Ile	Ile	385	390		395
Pro	Cys	Ser	Val	Val	Gly	His	Val	Phe	Arg	Thr	Lys	Ser	Pro	His	Thr	405	410		415
Phe	Pro	Lys	Gly	Thr	Ser	Val	Ile	Ala	Arg	Asn	Gln	Val	Arg	Leu	Ala	420	425		430
Glu	Val	Trp	Met	Asp	Ser	Tyr	Lys	Lys	Ile	Phe	Tyr	Arg	Arg	Asn	Leu	435	440		445
Gln	Ala	Ala	Lys	Met	Ala	Gln	Glu	Lys	Ser	Phe	Gly	Asp	Ile	Ser	Glu	450	455		460
Arg	Leu	Gln	Leu	Arg	Glu	Gln	Leu	His	Cys	His	Asn	Phe	Ser	Trp	Tyr	465	470		475
Leu	His	Asn	Val	Tyr	Pro	Glu	Met	Phe	Val	Pro	Asp	Leu	Thr	Pro	Thr	485	490		495
Phe	Tyr	Gly	Ala	Ile	Lys	Asn	Leu	Gly	Thr	Asn	Gln	Cys	Leu	Asp	Val	500	505		510
Gly	Glu	Asn	Asn	Arg	Gly	Gly	Lys	Pro	Leu	Ile	Met	Tyr	Ser	Cys	His	515	520		525
Gly	Leu	Gly	Gly	Asn	Gln	Tyr	Phe	Glu	Tyr	Thr	Thr	Gln	Arg	Asp	Leu	530	535		540
Arg	His	Asn	Ile	Ala	Lys	Gln	Leu	Cys	Leu	His	Val	Ser	Lys	Gly	Ala	545	550		555
Leu	Gly	Leu	Gly	Ser	Cys	His	Phe	Thr	Gly	Lys	Asn	Ser	Gln	Val	Pro	565	570		575
Lys	Asp	Glu	Glu	Trp	Glu	Leu	Ala	Gln	Asp	Gln	Leu	Ile	Arg	Asn	Ser	580	585		590
Gly	Ser	Gly	Thr	Cys	Leu	Thr	Ser	Gln	Asp	Lys	Lys	Pro	Ala	Met	Ala	595	600		605
Pro	Cys	Asn	Pro	Ser	Asp	Pro	His	Gln	Leu	Trp	Leu	Phe	Val	*		610	615		620
																			622

<211> 345
 <212> PRT
 <213> Homo sapiens

<400> 1713
 Met Ile Asp Glu Leu Asn Lys Gln Val Ser Glu Leu Ser Gln Leu Tyr
 1 5 10 15
 Lys Glu Ala Gln Ala Glu Leu Glu Asp Tyr Arg Lys Arg Lys Ser Leu
 20 25 30
 Glu Asp Val Thr Ala Glu Tyr Ile His Lys Ala Glu His Glu Lys Leu
 35 40 45
 Met Gln Leu Thr Asn Val Ser Arg Ala Lys Ala Glu Asp Ala Leu Ser
 50 55 60
 Glu Met Lys Ser Gln Tyr Ser Lys Val Leu Asn Glu Leu Thr Gln Leu
 65 70 75 80
 Lys Gln Leu Val Asp Ala Gln Lys Glu Asn Ser Val Ser Ile Thr Glu
 85 90 95
 His Leu Gln Val Ile Thr Thr Leu Arg Thr Ala Ala Lys Glu Met Glu
 100 105 110
 Glu Lys Ile Ser Asn Leu Lys Glu His Leu Ala Ser Lys Glu Val Glu
 115 120 125
 Val Ala Lys Leu Glu Lys Gln Leu Leu Glu Glu Lys Ala Ala Met Thr
 130 135 140
 Asp Ala Met Val Pro Arg Ser Ser Tyr Glu Lys Leu Gln Ser Ser Leu
 145 150 155 160
 Glu Ser Glu Val Ser Val Leu Ala Ser Lys Leu Lys Glu Ser Val Lys
 165 170 175
 Glu Lys Glu Lys Val His Ser Glu Val Val Gln Ile Arg Ser Glu Val
 180 185 190
 Ser Gln Val Lys Arg Glu Lys Glu Asn Ile Gln Thr Leu Leu Lys Ser
 195 200 205
 Lys Glu Gln Glu Val Asn Glu Leu Leu Gln Lys Phe Gln Gln Ala Gln
 210 215 220
 Glu Glu Leu Ala Glu Met Lys Arg Tyr Ser Glu Ser Ser Ser Lys Leu
 225 230 235 240
 Glu Glu Asp Lys Asp Lys Lys Ile Asn Glu Met Ser Lys Glu Val Thr
 245 250 255
 Lys Leu Lys Glu Ala Leu Asn Ser Leu Ser Gln Leu Ser Tyr Ser Thr
 260 265 270
 Ser Ser Ser Lys Arg Gln Ser Gln Gln Leu Glu Ala Leu Gln Gln Gln
 275 280 285
 Val Lys Gln Leu Gln Asn Gln Leu Ala Glu Cys Lys Lys Gln His Gln
 290 295 300
 Glu Val Ile Ser Val Tyr Arg Met His Leu Leu Tyr Ala Val Gln Gly
 305 310 315 320
 Gln Met Asp Glu Asp Val Gln Lys Val Leu Lys Gln Ile Leu Thr Met
 325 330 335
 Cys Lys Asn Gln Ser Gln Lys Lys *
 340 344

<210> 1714
 <211> 305
 <212> PRT
 <213> Homo sapiens

<400> 1714
 Met Ala His Leu Gly Asn Cys Leu Leu Ser Ile Lys Pro Gln Glu Lys
 1 5 10 15
 Ser Glu Gly Leu Gln Leu Asn Phe Gln Gln Asn Val Asp Asp Ala Met
 20 25 30

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Thr Val Leu Pro Lys Leu Ala Thr Gly Leu Asp Val Asn Val Arg Phe
      35              40              45
Thr Gly Val Ser Asp Phe Glu Tyr Thr Pro Glu Cys Ser Val Phe Asp
      50              55              60
Leu Leu Gly Ile Pro Leu Tyr His Gly Trp Leu Val Asp Pro Gln Gln
      65              70              75              80
Ser Pro Glu Ala Ala Arg Ala Val Gly Lys Leu Ser Tyr Asn Gln Leu
      85              90              95
Val Glu Arg Ile Ile Thr Cys Lys His Ser Ser Asp Thr Asn Leu Val
      100             105             110
Thr Glu Gly Leu Ile Ala Glu Gln Phe Leu Glu Thr Thr Ala Ala His
      115             120             125
Leu Thr Tyr His Gly Leu Cys Glu Leu Thr Ala Ala Lys Glu Gly
      130             135             140
Glu Leu Ser Val Phe Phe Arg Asn Asn His Phe Ser Thr Met Thr Lys
      145             150             155             160
His Lys Ser His Leu Tyr Leu Leu Val Thr Asp Gln Gly Phe Leu Gln
      165             170             175
Glu Glu Gln Val Val Trp Glu Ser Leu His Asn Val Asp Gly Asp Ser
      180             185             190
Cys Phe Cys Asp Ser Asp Phe His Leu Ser His Ser Leu Gly Lys Gly
      195             200             205
Pro Gly Ala Glu Gly Gly Ser Gly Ser Pro Glu Lys Gln Leu Gln Val
      210             215             220
Asp Gln Asp Tyr Leu Ile Ala Leu Ser Leu Gln Gln Gln Gln Pro Arg
      225             230             235             240
Gly Pro Leu Gly Leu Thr Asp Leu Glu Leu Ala Gln Gln Leu Gln Gln
      245             250             255
Glu Glu Tyr Gln Gln Gln Ala Ala Gln Pro Val Arg Met Arg Thr
      260             265             270
Arg Val Leu Ser Leu Gln Gly Arg Gly Ala Thr Ser Gly Arg Pro Ala
      275             280             285
Gly Glu Arg Arg Gln Arg Pro Lys His Glu Ser Asp Cys Ile Leu Leu
      290             295             300             304

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<210> 1715
<211> 471
<212> PRT
<213> Homo sapiens

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<400> 1715
Met Glu Phe Ala Ala Glu Asn Glu Gly Lys Ser Gly Gly Gly Leu His
  1              5              10              15
Ser Val Ala Glu Gly Val Arg Leu Ser Pro Glu Pro Gly Arg Glu Gly
      20              25              30
Val Arg Asp Leu Ala Gly Ala Glu Glu Phe Gly Gly Gly Glu Glu Gly
      35              40              45
Thr Gly Leu Thr Gly Ile Lys Glu Ile Gly Asp Gly Glu Glu Gly Ser
      50              55              60
Gly Gln Arg Pro Glu Glu Ile Pro Met Asp Leu Thr Val Val Lys Gln
      65              70              75              80
Glu Ile Ile Asp Trp Pro Gly Thr Glu Gly Arg Leu Ala Gly Gln Trp
      85              90              95
Val Glu Gln Glu Val Glu Asp Arg Pro Glu Val Lys Asp Glu Asn Ala
      100             105             110
Gly Val Leu Glu Val Lys Gln Glu Thr Asp Ser Ser Leu Val Val Lys
      115             120             125
Glu Ala Lys Val Gly Glu Pro Glu Val Lys Glu Glu Lys Val Lys Glu
      130             135             140

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Glu Val Met Asp Trp Ser Glu Val Lys Glu Glu Lys Asp Asn Leu Glu
 145 150 155 160
 Ile Lys Gln Glu Glu Lys Phe Val Gly Gln Cys Ile Lys Glu Glu Leu
 165 170 175
 Met His Gly Glu Cys Val Lys Glu Glu Lys Asp Phe Leu Lys Lys Glu
 180 185 190
 Ile Val Asp Asp Thr Lys Val Lys Glu Glu Pro Pro Ile Asn His Pro
 195 200 205
 Val Gly Cys Lys Arg Lys Leu Ala Met Ser Arg Cys Glu Thr Cys Gly
 210 215 220
 Thr Glu Glu Ala Lys Tyr Arg Cys Pro Arg Cys Met Arg Tyr Ser Cys
 225 230 235 240
 Ser Leu Pro Cys Val Lys Lys His Lys Ala Glu Leu Thr Cys Asn Gly
 245 250 255
 Val Arg Asp Lys Thr Ala Tyr Ile Ser Ile Gln Gln Phe Thr Glu Met
 260 265 270
 Asn Leu Leu Ser Asp Tyr Arg Phe Leu Glu Asp Val Ala Arg Thr Ala
 275 280 285
 Asp His Ile Ser Arg Asp Ala Phe Leu Lys Arg Pro Ile Ser Asn Lys
 290 295 300
 Tyr Met Tyr Phe Met Lys Asn Arg Ala Arg Arg Gln Gly Ile Asn Leu
 305 310 315 320
 Lys Leu Leu Pro Asn Gly Phe Thr Lys Arg Lys Glu Asn Ser Thr Phe
 325 330 335
 Phe Asp Lys Lys Lys Gln Gln Phe Cys Trp His Val Lys Leu Gln Phe
 340 345 350
 Pro Gln Ser Gln Ala Glu Tyr Ile Glu Lys Arg Val Pro Asp Asp Lys
 355 360 365
 Thr Ile Asn Glu Ile Leu Lys Pro Tyr Ile Asp Pro Glu Lys Ser Asp
 370 375 380
 Pro Val Ile Arg Gln Arg Leu Lys Ala Tyr Ile Arg Ser Gln Thr Gly
 385 390 395 400
 Val Gln Ile Leu Met Lys Ile Glu Tyr Met Gln Gln Asn Leu Val Arg
 405 410 415
 Tyr Tyr Glu Leu Asp Pro Tyr Lys Ser Leu Leu Asp Asn Leu Arg Asn
 420 425 430
 Lys Val Ile Ile Glu Tyr Pro Thr Leu His Val Val Leu Lys Gly Ser
 435 440 445
 Asn Asn Asp Met Lys Val Leu His Gln Val Lys Ser Glu Ser Thr Lys
 450 455 460
 Asn Val Gly Asn Glu Asn *
 465 470

<210> 1716

<211> 645

<212> PRT

<213> Homo sapiens

<400> 1716

Met Arg Asp Gly Gly Lys Tyr Ser Leu Glu Gln Arg Gly Val Leu Gln
 1 5 10 15
 Lys Leu Ile His His Arg Lys Glu Thr Leu Ser Arg Arg Gly Pro Ser
 20 25 30
 Ala Ser Ser Val Ala Val Met Thr Ser Ser Thr Ser Asp His His Leu
 35 40 45
 Asp Ala Ala Ala Ala Arg Gln Pro Asn Gly Val Cys Arg Ala Gly Phe
 50 55 60
 Glu Arg Gln His Ser Leu Pro Ser Ser Glu His Leu Gly Ala Asp Gly
 65 70 75 80
 Gly Leu Tyr Gln Ile Pro Leu Pro Ser Ser Gln Ile Pro Pro Gln Pro
 85 90 95

Arg	Arg	Ala	Ala	Pro	Thr	Thr	Pro	Pro	Pro	Pro	Val	Lys	Arg	Arg	Asp
			100					105					110		
Arg	Glu	Ala	Leu	Met	Ala	Ser	Gly	Ser	Gly	Gly	His	Asn	Thr	Met	Pro
		115					120					125			
Ser	Gly	Gly	Asn	Ser	Val	Ser	Ser	Gly	Ser	Ser	Val	Ser	Ser	Thr	Ser
	130					135					140				
Leu	Asp	Thr	Leu	Tyr	Thr	Ser	Ser	Ser	Pro	Ser	Glu	Pro	Gly	Ser	Ser
145					150					155					160
Cys	Ser	Pro	Thr	Pro	Pro	Pro	Val	Pro	Arg	Arg	Gly	Thr	His	Thr	Thr
				165				170						175	
Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro
			180					185					190		
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp
	195					200						205			
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala
	210					215						220			
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu
225					230					235					240
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala
				245				250						255	
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser
		260					265						270		
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu
	275					280						285			
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu
	290					295					300				
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln
305					310					315					320
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu
				325				330						335	
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys
		340						345					350		
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala
	355					360						365			
Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Leu	Lys
	370					375					380				
Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu
385					390					395					400
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp
				405					410					415	
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met
		420						425					430		
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu
	435						440					445			
Gly	Thr	Pro	Phe	Ala	Gln	Phe	Leu	Leu	Asn	Ile	Val	Glu	Asp	Gly	Leu
	450					455					460				
Pro	Leu	Asp	Thr	Thr	Glu	Gln	Leu	Pro	Asp	Leu	Cys	Val	Asn	Leu	Leu
465					470					475				480	
Leu	Ala	Leu	Asn	Leu	His	Leu	Pro	Ala	Ala	Asp	Gln	Asn	Val	Ile	Met
				485					490					495	
Ala	Ala	Leu	Ser	Lys	His	Ala	Asn	Val	Lys	Ile	Phe	Ser	Glu	Lys	Leu
			500					505					510		
Leu	Leu	Leu	Leu	Asn	Arg	Gly	Asp	Asp	Pro	Val	Arg	Ile	Phe	Lys	His
	515						520					525			
Glu	Pro	Gln	Pro	Pro	His	Ser	Val	Leu	Lys	Phe	Leu	Gln	Asp	Val	Phe
	530					535					540				
Gly	Ser	Pro	Ala	Thr	Ala	Ala	Ile	Phe	Tyr	His	Thr	Asp	Met	Met	Ala
545					550					555					560
Leu	Ile	Asp	Ile	Thr	Val	Arg	His	Ile	Ala	Asp	Leu	Ser	Pro	Gly	Asp
				565				570						575	
Lys	Leu	Arg	Met	Glu	Tyr	Leu	Ser	Leu	Met	His	Ala	Ile	Val	Arg	Thr
			580					585					590		
Thr	Pro	Tyr	Leu	Gln	His	Arg	His	Arg	Leu	Pro	Asp	Leu	Gln	Ala	Ile
		595					600					605			

Leu Arg Arg Ile Leu Asn Glu Glu Glu Thr Ser Pro Gln Cys Gln Met
 610 615 620
 Asp Arg Met Ile Val Arg Glu Met Cys Lys Glu Phe Leu Val Leu Gly
 625 630 635 640
 Glu Ala Pro Ser *
 644

<210> 1717
 <211> 186
 <212> PRT
 <213> Homo sapiens

<400> 1717
 Met Leu Lys Ser Met Val Leu Trp Leu Gly Glu Gln Val Gln Ser Leu
 1 5 10 15
 Gln Leu Gln Gln Gln Leu Arg His His Phe Asn His Ile His Ile Cys
 20 25 30
 Val Thr Asn Ser Glu Tyr Asn Gln Ser Glu Tyr Pro Trp Asp Leu Val
 35 40 45
 Lys Ala His Leu Gln Gly Ala Phe Thr Ser Asn Ile Thr Phe Asp Ile
 50 55 60
 Ser Glu Leu Gln Asn Lys Ile Leu Asp Leu Asn Arg His Thr Gln Glu
 65 70 75 80
 Phe Gln Pro Ser Leu Glu Asp Trp Thr Glu Phe Gln Glu Gly Leu Glu
 85 90 95
 Ser Leu Asn Pro Trp Thr Tyr Leu Lys Tyr His Ser Asn Ile Leu Tyr
 100 105 110
 Val Val Leu Gly Val Met Leu Phe Cys Leu Cys Leu Leu Phe Ile Val
 115 120 125
 Cys Lys Ile Gly Trp Thr Ala Asn Arg Arg Met Arg Ala Ala Gln Pro
 130 135 140
 Gly Leu Thr Phe Phe Gln Leu Ile His Lys Gln Gly Asp Met Gln Gly
 145 150 155 160
 Ala Glu Gly Pro Trp Asp Val Thr Asn Ser Ala Phe His Trp Arg Leu
 165 170 175
 Tyr Asp Gln Thr Ala Asn Cys Leu Ser *
 180 185

<210> 1718
 <211> 440
 <212> PRT
 <213> Homo sapiens

<400> 1718
 Met Phe Met Phe Asn Trp Phe Thr Asp Cys Leu Trp Thr Leu Phe Leu
 1 5 10 15
 Ser Asn Tyr Gln Pro Ser Val Glu Ser Ser Ser Pro Gly Gly Ser Ala
 20 25 30
 Thr Ser Asp Asp His Glu Phe Asp Pro Ser Ala Asp Met Leu Val His
 35 40 45
 Asp Phe Asp Asp Glu Arg Thr Leu Glu Glu Glu Glu Met Met Glu Gly
 50 55 60
 Glu Thr Asn Phe Ser Ser Glu Ile Glu Asp Leu Ala Arg Glu Gly Asp
 65 70 75 80
 Met Pro Ile His Glu Leu Leu Ser Leu Tyr Gly Tyr Gly Ser Thr Val
 85 90 95
 Arg Leu Pro Glu Glu Asp Glu Glu Glu Glu Glu Glu Glu Gly
 100 105 110

Glu Asp Asp Glu Asp Ala Asp Asn Asp Asp Asn Ser Gly Cys Ser Gly
 115 120 125
 Glu Asn Lys Glu Glu Asn Ile Lys Asp Ser Ser Gly Gln Glu Asp Glu
 130 135 140
 Thr Gln Ser Ser Asn Asp Asp Pro Ser Gln Ser Val Ala Ser Gln Asp
 145 150 155 160
 Ala Gln Glu Ile Ile Arg Pro Arg Arg Cys Lys Tyr Phe Asp Thr Asn
 165 170 175
 Ser Glu Val Glu Glu Glu Ser Glu Glu Asp Glu Asp Tyr Ile Pro Ser
 180 185 190
 Glu Asp Trp Lys Lys Glu Ile Met Val Gly Ser Met Phe Gln Ala Glu
 195 200 205
 Ile Pro Val Gly Ile Cys Arg Tyr Lys Glu Asn Glu Lys Val Tyr Glu
 210 215 220
 Asn Asp Asp Gln Leu Leu Trp Asp Pro Glu Tyr Leu Pro Glu Asp Lys
 225 230 235 240
 Val Ile Ile Phe Leu Lys Asp Ala Ser Arg Arg Thr Gly Asp Glu Lys
 245 250 255
 Gly Val Glu Ala Ile Pro Glu Gly Ser His Ile Lys Asp Asn Glu Gln
 260 265 270
 Ala Leu Tyr Glu Leu Val Lys Cys Asn Phe Asp Thr Glu Glu Ala Leu
 275 280 285
 Arg Arg Leu Arg Phe Asn Val Lys Ala Ala Arg Glu Glu Leu Ser Val
 290 295 300
 Trp Thr Glu Glu Glu Cys Arg Asn Phe Glu Gln Gly Leu Lys Ala Tyr
 305 310 315 320
 Gly Lys Asp Phe His Leu Ile Gln Ala Asn Lys Val Arg Thr Arg Ser
 325 330 335
 Val Gly Glu Cys Val Ala Phe Tyr Tyr Met Trp Lys Lys Ser Glu Arg
 340 345 350
 Tyr Asp Phe Phe Ala Gln Gln Thr Arg Phe Gly Lys Lys Lys Tyr Asn
 355 360 365
 Leu His Pro Gly Val Thr Asp Tyr Met Asp Arg Leu Leu Asp Glu Ser
 370 375 380
 Glu Ser Ala Ala Ser Ser Arg Ala Gln Ser Pro Pro Pro Thr Ala Ser
 385 390 395 400
 Asn Ser Ser Asn Ser Gln Ser Glu Lys Glu Asp Gly Thr Val Ser Thr
 405 410 415
 Ala Asn Gln Asn Gly Lys Gln Pro Glu Lys His Phe Ser Phe Phe Ile
 420 425 430
 Ile Arg Asp Thr Phe Leu Gln *
 435 439

<210> 1719

<211> 448

<212> PRT

<213> Homo sapiens

<400> 1719

Met Gly Glu Asp Thr Asp Thr Arg Lys Ile Asn His Ser Phe Leu Arg
 1 5 10 15
 Asp His Ser Tyr Val Thr Glu Ala Asp Ile Ile Ser Thr Val Glu Phe
 20 25 30
 Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Arg Val
 35 40 45
 Val Ile Phe Gln Arg Glu Pro Glu Ser Lys Asn Ala Pro His Ser Gln
 50 55 60
 Gly Glu Tyr Asp Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
 65 70 75 80
 Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Lys
 85 90 95

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Trp Leu Pro Gln Gln Asn Ala Ala His Ser Leu Leu Ser Thr Asn Asp
      100      105      110
Lys Thr Ile Lys Leu Trp Lys Ile Thr Glu Arg Asp Lys Arg Pro Glu
      115      120      125
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Lys Leu Lys Asp Leu Ser Thr
      130      135      140
Val Thr Ser Leu Gln Val Pro Val Leu Lys Pro Met Asp Leu Met Val
145      150      155      160
Glu Val Ser Pro Arg Arg Ile Phe Ala Asn Gly His Thr Tyr His Ile
      165      170      175
Asn Ser Ile Ser Val Asn Ser Asp Cys Glu Thr Tyr Met Ser Ala Asp
      180      185      190
Asp Leu Arg Ile Asn Leu Trp His Leu Ala Ile Thr Asp Arg Ser Phe
      195      200      205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Asp Leu Thr Glu Val
      210      215      220
Ile Thr Ala Ser Glu Phe His Pro His His Cys Asn Leu Phe Val Tyr
225      230      235      240
Ser Ser Ser Lys Gly Ser Leu Arg Leu Cys Asp Met Arg Ala Ala Ala
      245      250      255
Leu Cys Asp Lys His Ser Lys Leu Phe Glu Glu Pro Glu Asp Pro Ser
      260      265      270
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Val Ser Asp Val Lys
      275      280      285
Phe Ser His Ser Gly Arg Tyr Met Leu Thr Arg Asp Tyr Leu Thr Val
      290      295      300
Lys Val Trp Asp Leu Asn Met Glu Ala Arg Pro Ile Glu Thr Tyr Gln
305      310      315      320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
      325      330      335
Cys Ile Phe Asp Lys Phe Glu Cys Ala Trp Asn Gly Ser Asp Ser Val
      340      345      350
Ile Met Thr Gly Thr Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asn
      355      360      365
Thr Lys Arg Asp Val Thr Leu Glu Ala Ser Arg Glu Ser Ser Lys Pro
      370      375      380
Arg Ala Val Leu Lys Pro Arg Arg Val Cys Val Gly Gly Lys Arg Arg
385      390      395      400
Arg Asp Asp Ile Ser Val Asp Ser Leu Asp Phe Thr Lys Lys Ile Leu
      405      410      415
His Thr Ala Trp His Pro Ala Glu Asn Ile Ile Ala Ile Ala Ala Thr
      420      425      430
Asn Asn Leu Tyr Ile Phe Gln Asp Lys Val Asn Ser Asp Met His *
      435      440      445      447

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<210> 1720

<211> 141

<212> PRT

<213> Homo sapiens

<400> 1720

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Met Ser Phe Ser Leu Asn Phe Thr Leu Pro Ala Asn Thr Thr Ser Ser
  1      5      10      15
Pro Val Thr Gly Lys Glu Thr Asp Cys Gly Pro Ser Leu Gly Leu
      20      25      30
Ala Ala Gly Ile Pro Leu Leu Val Ala Thr Ala Leu Leu Val Ala Leu
      35      40      45
Leu Phe Thr Leu Ile His Arg Arg Arg Ser Ser Ile Glu Ala Met Glu
      50      55      60
Glu Ser Asp Arg Pro Cys Glu Ile Ser Glu Ile Asp Asp Asn Pro Lys
      65      70      75      80

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Ile	Ser	Glu	Asn	Pro	Arg	Arg	Ser	Pro	Thr	His	Glu	Lys	Asn	Thr	Met
				85					90					95	
Gly	Ala	Gln	Glu	Ala	His	Ile	Tyr	Val	Lys	Thr	Val	Ala	Gly	Ser	Glu
			100					105					110		
Glu	Pro	Val	His	Asp	Arg	Tyr	Arg	Pro	Thr	Ile	Glu	Met	Glu	Arg	Arg
		115					120					125			
Arg	Gly	Leu	Trp	Trp	Leu	Val	Pro	Arg	Leu	Ser	Leu	Glu			
	130					135					140	141			

<210> 1721
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 1721

Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp	Leu	Arg	Arg	Pro	Lys	Ile	His	Gly
1				5					10					15	
Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln	Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln
			20					25					30		
Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala	Ala	Thr	Leu	Asn	His	Ile	Asp	Glu
		35					40					45			
Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly	Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys
	50					55					60				
Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile	Thr	His	Val	Val	Asn	Ala	Ala	Ala
	65				70					75					80
Gly	Arg	Val	Leu	Val	His	Cys	Ala	Met	Gly	Val	Ser	Arg	Ser	Ala	Thr
				85					90					95	
Leu	Val	Leu	Ala	Phe	Leu	Met	Ile	Tyr	Glu	Asn	Met	Thr	Leu	Val	Glu
			100					105					110		
Ala	Ile	Gln	Thr	Val	Gln	Ala	His	Arg	Asn	Ile	Cys	Pro	Asn	Ser	Gly
	115						120					125			
Phe	Leu	Arg	Gln	Leu	Gln	Val	Leu	Asp	Asn	Arg	Leu	Gly	Arg	Glu	Thr
	130					135					140				
Gly	Arg	Phe	*												
145		147													

<210> 1722
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 1722

Met	Gly	Ala	His	Leu	Val	Arg	Arg	Tyr	Leu	Gly	Asp	Ala	Ser	Val	Glu
1				5					10					15	
Pro	Asp	Pro	Leu	Gln	Met	Pro	Thr	Phe	Pro	Pro	Asp	Tyr	Gly	Phe	Pro
			20					25					30		
Glu	Arg	Lys	Glu	Arg	Glu	Met	Val	Ala	Thr	Gln	Gln	Glu	Met	Met	Asp
		35					40					45			
Ala	Gln	Leu	Arg	Leu	Gln	Leu	Arg	Asp	Tyr	Cys	Ala	His	His	Leu	Ile
	50					55					60				
Arg	Leu	Leu	Lys	Cys	Lys	Arg	Asp	Ser	Phe	Pro	Asn	Phe	Leu	Ala	Cys
	65				70					75					80
Lys	Gln	Glu	Arg	His	Asp	Trp	Asp	Tyr	Cys	Glu	His	Arg	Asp	Tyr	Val
				85					90					95	
Met	Arg	Met	Lys	Glu	Phe	Glu	Arg	Glu	Arg	Arg	Leu	Leu	Gln	Arg	Lys
		100						105					110		
Lys	Arg	Arg	Glu	Lys	Lys	Ala	Ala	Glu	Leu	Ala	Lys	Gly	Gln	Gly	Pro
		115					120						125		

Gly Glu Val Asp Pro Lys Val Ala Leu *
 130 135 137

<210> 1723
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 1723
 Met Gly Ala His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Glu
 1 5 10 15
 Pro Asp Pro Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe Pro
 20 25 30
 Glu Arg Lys Glu Arg Glu Met Val Ala Thr Gln Gln Glu Met Met Asp
 35 40 45
 Ala Leu Leu Lys Cys Lys Arg Asp Ser Phe Pro Asn Phe Leu Ala Cys
 50 55 60
 Lys Gln Glu Arg His Asp Trp Asp Tyr Cys Glu His Arg Asp Tyr Val
 65 70 75 80
 Met Arg Met Lys Glu Phe Glu Arg Glu Arg Leu Leu Gln Arg Lys
 85 90 95
 Lys Arg Arg Glu Lys Lys Ala Ala Glu Leu Ala Lys Gly Gln Gly Pro
 100 105 110
 Gly Glu Val Asp Pro Lys Val Ala Leu *
 115 120 121

<210> 1724
 <211> 1242
 <212> PRT
 <213> Homo sapiens

<400> 1724
 Met Arg Ala Val Leu Thr Trp Arg Asp Lys Ala Glu His Cys Ile Asn
 1 5 10 15
 Asp Ile Ala Phe Lys Pro Asp Gly Thr Gln Leu Ile Leu Ala Ala Gly
 20 25 30
 Ser Arg Leu Leu Val Tyr Asp Thr Ser Asp Gly Thr Leu Leu Gln Pro
 35 40 45
 Leu Lys Gly His Lys Asp Thr Val Tyr Cys Val Ala Tyr Ala Lys Asp
 50 55 60
 Gly Lys Arg Phe Ala Ser Gly Ser Ala Asp Lys Ser Val Ile Ile Trp
 65 70 75 80
 Thr Ser Lys Leu Glu Gly Ile Leu Lys Tyr Thr His Asn Asp Ala Ile
 85 90 95
 Gln Cys Val Ser Tyr Asn Pro Ile Thr His Gln Leu Ala Ser Cys Ser
 100 105 110
 Ser Ser Asp Phe Gly Leu Trp Ser Pro Glu Gln Lys Ser Val Ser Lys
 115 120 125
 His Lys Ser Ser Ser Lys Ile Ile Cys Cys Ser Trp Thr Asn Asp Gly
 130 135 140
 Gln Tyr Leu Ala Leu Gly Met Phe Asn Gly Ile Ile Ser Ile Arg Asn
 145 150 155 160
 Lys Asn Gly Glu Glu Lys Val Lys Ile Glu Arg Pro Gly Gly Ser Leu
 165 170 175
 Ser Pro Ile Trp Ser Ile Cys Trp Asn Pro Ser Ser Arg Trp Glu Ser
 180 185 190
 Phe Trp Met Asn Arg Glu Asn Glu Asp Ala Glu Asp Val Ile Val Asn
 195 200 205

Arg	Tyr	Ile	Gln	Glu	Ile	Pro	Ser	Thr	Leu	Lys	Ser	Ala	Val	Tyr	Ser	210	215	220
Ser	Gln	Gly	Ser	Glu	Ala	Glu	Glu	Glu	Glu	Pro	Glu	Glu	Glu	Asp	Asp	225	230	235
Ser	Pro	Arg	Asp	Asp	Asn	Leu	Glu	Glu	Arg	Asn	Asp	Ile	Leu	Ala	Val	245	250	255
Ala	Asp	Trp	Gly	Gln	Lys	Val	Ser	Phe	Tyr	Gln	Leu	Ser	Gly	Lys	Gln	260	265	270
Ile	Gly	Lys	Asp	Arg	Ala	Leu	Asn	Phe	Asp	Pro	Cys	Cys	Ile	Ser	Tyr	275	280	285
Phe	Thr	Lys	Gly	Glu	Tyr	Ile	Leu	Leu	Gly	Gly	Ser	Asp	Lys	Gln	Val	290	295	300
Ser	Leu	Phe	Thr	Lys	Asp	Gly	Val	Arg	Leu	Gly	Thr	Val	Gly	Glu	Gln	305	310	315
Asn	Ser	Trp	Val	Trp	Thr	Cys	Gln	Ala	Lys	Pro	Asp	Ser	Asn	Tyr	Val	325	330	335
Val	Val	Gly	Cys	Gln	Asp	Gly	Thr	Ile	Ser	Phe	Tyr	Gln	Leu	Ile	Phe	340	345	350
Ser	Thr	Val	His	Gly	Leu	Tyr	Lys	Asp	Arg	Tyr	Ala	Tyr	Arg	Asp	Ser	355	360	365
Met	Thr	Asp	Val	Ile	Val	Gln	His	Leu	Ile	Thr	Glu	Gln	Lys	Val	Arg	370	375	380
Ile	Lys	Cys	Lys	Glu	Leu	Val	Lys	Lys	Ile	Ala	Ile	Tyr	Arg	Asn	Arg	385	390	395
Leu	Ala	Ile	Gln	Leu	Pro	Glu	Lys	Ile	Leu	Ile	Tyr	Glu	Leu	Tyr	Ser	405	410	415
Glu	Asp	Leu	Ser	Asp	Met	His	Tyr	Arg	Val	Lys	Glu	Lys	Ile	Ile	Lys	420	425	430
Lys	Phe	Glu	Cys	Asn	Leu	Leu	Val	Val	Cys	Ala	Asn	His	Ile	Ile	Leu	435	440	445
Cys	Gln	Glu	Lys	Arg	Leu	Gln	Cys	Leu	Ser	Phe	Ser	Gly	Val	Lys	Glu	450	455	460
Arg	Glu	Trp	Gln	Met	Glu	Ser	Leu	Ile	Arg	Tyr	Ile	Lys	Val	Ile	Gly	465	470	475
Gly	Pro	Pro	Gly	Arg	Glu	Gly	Leu	Leu	Val	Gly	Leu	Lys	Asn	Gly	Gln	485	490	495
Ile	Leu	Lys	Ile	Phe	Val	Asp	Asn	Leu	Phe	Ala	Ile	Val	Leu	Leu	Lys	500	505	510
Gln	Ala	Thr	Ala	Val	Arg	Cys	Leu	Asp	Met	Ser	Ala	Ser	Arg	Lys	Lys	515	520	525
Leu	Ala	Val	Val	Asp	Glu	Asn	Asp	Thr	Cys	Leu	Val	Tyr	Asp	Ile	Asp	530	535	540
Thr	Lys	Glu	Leu	Leu	Phe	Gln	Glu	Pro	Asn	Ala	Asn	Ser	Val	Ala	Trp	545	550	555
Asn	Thr	Gln	Cys	Glu	Asp	Met	Leu	Cys	Phe	Ser	Gly	Gly	Gly	Tyr	Leu	565	570	575
Asn	Ile	Lys	Ala	Ser	Thr	Phe	Pro	Val	His	Arg	Gln	Lys	Leu	Gln	Gly	580	585	590
Phe	Val	Val	Gly	Tyr	Asn	Gly	Ser	Lys	Ile	Phe	Cys	Leu	His	Val	Phe	595	600	605
Ser	Ile	Ser	Ala	Val	Glu	Val	Pro	Gln	Ser	Ala	Pro	Met	Tyr	Gln	Tyr	610	615	620
Leu	Asp	Arg	Lys	Leu	Phe	Lys	Glu	Ala	Tyr	Gln	Ile	Ala	Cys	Leu	Gly	625	630	635
Val	Thr	Asp	Thr	Asp	Trp	Arg	Glu	Leu	Ala	Met	Glu	Ala	Leu	Glu	Gly	645	650	655
Leu	Asp	Phe	Glu	Thr	Ala	Lys	Lys	Ala	Phe	Ile	Arg	Val	Gln	Asp	Leu	660	665	670
Arg	Tyr	Leu	Glu	Leu	Ile	Ser	Ser	Ile	Glu	Glu	Arg	Lys	Lys	Arg	Gly	675	680	685
Glu	Thr	Asn	Asn	Asp	Leu	Phe	Leu	Ala	Asp	Val	Phe	Ser	Tyr	Gln	Gly	690	695	700
Lys	Phe	His	Glu	Ala	Ala	Lys	Leu	Tyr	Lys	Arg	Ser	Gly	His	Glu	Asn	705	710	715

Leu Ala Leu Glu Met Tyr Thr Asp Leu Cys Met Phe Glu Tyr Ala Lys
 725 730 735
 Asp Phe Leu Gly Ser Gly Asp Pro Lys Glu Thr Lys Met Leu Ile Thr
 740 745 750
 Lys Gln Ala Asp Trp Ala Arg Asn Ile Lys Glu Pro Lys Ala Ala Val
 755 760 765
 Glu Met Tyr Ile Ser Ala Gly Glu His Val Lys Ala Ile Glu Ile Cys
 770 775 780
 Gly Asp His Gly Trp Val Asp Met Leu Ile Asp Ile Ala Arg Lys Leu
 785 790 795 800
 Asp Lys Ala Glu Arg Glu Pro Leu Leu Leu Cys Ala Thr Tyr Leu Lys
 805 810 815
 Lys Leu Asp Ser Pro Gly Tyr Ala Ala Glu Thr Tyr Leu Lys Met Gly
 820 825 830
 Asp Leu Lys Ser Leu Val Gln Leu His Val Glu Thr Gln Arg Trp Asp
 835 840 845
 Glu Ala Phe Ala Leu Gly Glu Lys His Pro Glu Phe Lys Asp Asp Ile
 850 855 860
 Tyr Met Pro Tyr Ala Gln Trp Leu Ala Glu Asn Asp Arg Phe Glu Glu
 865 870 875 880
 Ala Gln Lys Ala Phe His Lys Ala Gly Arg Gln Arg Glu Ala Val Gln
 885 890 895
 Val Leu Glu Gln Leu Thr Asn Asn Ala Val Ala Glu Ser Arg Phe Asn
 900 905 910
 Asp Ala Ala Tyr Tyr Tyr Trp Met Leu Ser Met Gln Cys Leu Asp Ile
 915 920 925
 Ala Gln Asp Pro Ala Gln Lys Asp Thr Met Leu Gly Lys Phe Tyr His
 930 935 940
 Phe Gln Arg Leu Ala Glu Leu Tyr His Gly Tyr His Ala Ile His Arg
 945 950 955 960
 His Thr Glu Asp Pro Phe Ser Val His Arg Pro Glu Thr Leu Phe Asn
 965 970 975
 Ile Ser Arg Phe Leu Leu His Ser Leu Pro Lys Asp Thr Pro Ser Gly
 980 985 990
 Ile Ser Lys Val Lys Ile Leu Phe Thr Leu Ala Lys Gln Ser Lys Ala
 995 1000 1005
 Leu Gly Ala Tyr Arg Leu Ala Arg His Ala Tyr Asp Lys Leu Arg Gly
 1010 1015 1020
 Leu Tyr Ile Pro Ala Arg Phe Gln Lys Ser Ile Glu Leu Gly Thr Leu
 1025 1030 1035 1040
 Thr Ile Arg Ala Lys Pro Phe His Asp Ser Glu Glu Leu Val Pro Leu
 1045 1050 1055
 Cys Tyr Arg Cys Ser Thr Asn Asn Pro Leu Leu Asn Asn Leu Gly Asn
 1060 1065 1070
 Val Cys Ile Asn Cys Arg Gln Pro Phe Ile Phe Ser Ala Ser Ser Tyr
 1075 1080 1085
 Asp Val Leu His Leu Val Glu Phe Tyr Leu Glu Glu Gly Ile Thr Asp
 1090 1095 1100
 Glu Glu Ala Ile Ser Leu Ile Asp Leu Glu Val Leu Arg Pro Lys Arg
 1105 1110 1115 1120
 Asp Asp Arg Gln Leu Glu Ile Ala Asn Asn Ser Ser Gln Ile Leu Arg
 1125 1130 1135
 Leu Val Glu Thr Lys Asp Ser Ile Gly Asp Glu Asp Pro Phe Thr Ala
 1140 1145 1150
 Lys Leu Ser Phe Glu Gln Gly Gly Ser Glu Phe Val Pro Val Val Val
 1155 1160 1165
 Ser Arg Leu Val Leu Arg Ser Met Ser Arg Arg Asp Val Leu Ile Lys
 1170 1175 1180
 Arg Trp Pro Pro Pro Leu Arg Trp Gln Tyr Phe Arg Ser Leu Leu Pro
 1185 1190 1195 1200
 Asp Ala Ser Ile Thr Met Cys Pro Ser Cys Phe Gln Met Phe His Ser
 1205 1210 1215
 Glu Asp Tyr Glu Leu Leu Val Leu Gln His Gly Cys Cys Pro Tyr Cys
 1220 1225 1230

Arg Arg Cys Lys Asp Asp Pro Gly Pro *
 1235 12401241

<210> 1725

<211> 351

<212> PRT

<213> Homo sapiens

<400> 1725

Met Asn Pro Arg Gly Leu Phe Gln Asp Phe Asn Pro Ser Lys Val Leu
 1 5 10 15
 Ile Tyr Thr Cys Leu Leu Leu Phe Ser Gly Leu Leu Pro Leu Arg Leu
 20 25 30
 Asp Gly Ile Ile Gln Trp Ser Tyr Trp Ala Val Phe Ala Pro Ile Trp
 35 40 45
 Leu Arg Lys Leu Leu Val Val Ala Gly Ala Ser Val Gly Ala Gly Val
 50 55 60
 Trp Ala Arg Asn Pro Arg Tyr Arg Thr Glu Gly Glu Ala Cys Val Glu
 65 70 75 80
 Ile Lys Ala Met Leu Ile Ala Val Gly Ile His Leu Leu Leu Leu Met
 85 90 95
 Phe Glu Val Leu Val Cys Asp Arg Val Glu Arg Gly Thr His Phe Trp
 100 105 110
 Leu Leu Val Phe Met Pro Leu Phe Phe Val Ser Pro Val Ser Val Ala
 115 120 125
 Ala Cys Val Trp Gly Phe Arg His Asp Arg Ser Leu Glu Leu Glu Ile
 130 135 140
 Leu Cys Ser Val Asn Ile Leu Gln Phe Ile Phe Ile Ala Leu Lys Leu
 145 150 155 160
 Asp Arg Ile Ile His Trp Pro Trp Leu Val Val Phe Val Pro Leu Trp
 165 170 175
 Ile Leu Met Ser Phe Leu Cys Leu Val Val Leu Tyr Tyr Ile Val Trp
 180 185 190
 Ser Leu Leu Phe Leu Arg Ser Leu Asp Val Val Ala Glu Gln Arg Arg
 195 200 205
 Thr His Val Thr Met Ala Ile Ser Trp Ile Thr Ile Val Val Pro Leu
 210 215 220
 Leu Thr Phe Glu Val Leu Leu Val His Arg Leu Asp Gly His Asn Thr
 225 230 235 240
 Phe Ser Tyr Val Ser Ile Phe Val Pro Leu Trp Leu Ser Leu Leu Thr
 245 250 255
 Leu Met Ala Thr Thr Phe Arg Arg Lys Gly Gly Asn His Trp Trp Phe
 260 265 270
 Gly Ile Arg Arg Asp Phe Cys Gln Phe Leu Leu Glu Ile Phe Pro Phe
 275 280 285
 Leu Arg Glu Tyr Gly Asn Ile Ser Tyr Asp Leu His His Glu Asp Ser
 290 295 300
 Glu Asp Ala Glu Glu Thr Ser Val Pro Glu Ala Pro Lys Ile Ala Pro
 305 310 315 320
 Ile Phe Gly Lys Lys Ala Arg Val Val Ile Thr Gln Ser Pro Gly Lys
 325 330 335
 Tyr Val Pro Pro Pro Lys Leu Asn Ile Asp Met Pro Asp *
 340 345 350

<210> 1726

<211> 240

<212> PRT

<213> Homo sapiens

<400> 1726

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Met Thr Cys Phe Gly Pro Tyr Pro Ile Gly Thr Gly Leu Gln Gly Ile
 1          5          10          15
Thr Leu Cys Tyr Ser Cys Phe Pro Ser Phe Cys Lys Met Lys Ser Arg
          20          25          30
Met Cys Met Ala Ile Ser Ile Cys Gln Thr Leu Ser Met Leu Ser Phe
          35          40          45
Val Val Cys Ala Phe Arg Tyr Arg His Met Phe Lys Arg Gly Trp Pro
          50          55          60
Met Gly Thr Cys Cys Leu Phe Leu Pro Thr Ala Ala Pro Val Leu Ser
          65          70          75          80
Cys Glu Ala Ala Thr Gln Thr Glu Arg Arg Leu Asp Leu Ala Ala Val
          85          90          95
Thr Leu Arg Arg Gly Leu Arg Ser Arg Ala Ser Arg Cys Arg Pro Arg
          100          105          110
Ser Leu Ile Asp Tyr Lys Ser Tyr Met Asp Thr Lys Leu Leu Val Ala
          115          120          125
Arg Phe Leu Glu Gln Ser Ser Cys Thr Met Thr Pro Asp Ile His Glu
          130          135          140
Leu Val Glu Asn Ile Lys Ser Val Leu Lys Ser Asp Glu Glu His Met
          145          150          155          160
Glu Glu Ala Ile Thr Ser Ala Ser Phe Leu Glu Gln Ile Met Ala Pro
          165          170          175
Leu Gln Pro Ser Thr Ser Arg Ala His Lys Leu Pro Leu Arg Arg Gln
          180          185          190
Pro Gly Leu Leu His Leu Gln Ser Cys Gly Asp Leu His Thr Ile Thr
          195          200          205
Pro Ala Gly Arg Pro Arg Ala Glu Arg Arg Pro Arg Arg Val Glu Ala
          210          215          220
Glu Arg Ser His Ser Leu Ile Gly Val Ile Arg Glu Thr Val Leu *
          225          230          235          239

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<210> 1727

<211> 238

<212> PRT

<213> Homo sapiens

<400> 1727

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Met Thr Cys Phe Gly Pro Tyr Pro Ile Gly Thr Gly Leu Gln Gly Ile
 1          5          10          15
Thr Leu Cys Cys Phe Pro Ser Phe Cys Lys Met Lys Ser Arg Met Cys
          20          25          30
Met Ala Ile Ser Ile Cys Gln Met Leu Ser Met Leu Ser Phe Val Val
          35          40          45
Cys Ala Phe Arg Tyr Arg His Met Phe Lys Arg Gly Trp Pro Met Gly
          50          55          60
Thr Cys Cys Leu Phe Leu Pro Thr Ala Ala Pro Val Leu Ser Cys Glu
          65          70          75          80
Ala Ala Thr Gln Thr Glu Arg Arg Leu Asp Leu Ala Ala Val Thr Leu
          85          90          95
Arg Arg Gly Leu Arg Ser Arg Ala Ser Arg Cys Arg Pro Arg Ser Leu
          100          105          110
Ile Asp Tyr Lys Ser Tyr Met Asp Thr Lys Leu Leu Val Ala Arg Phe
          115          120          125
Leu Glu Gln Ser Ser Cys Thr Met Thr Pro Asp Ile His Glu Leu Val
          130          135          140
Glu Asn Ile Lys Ser Val Leu Lys Ser Asp Glu Glu His Met Glu Glu
          145          150          155          160
Ala Ile Thr Ser Ala Ser Phe Leu Glu Gln Ile Met Ala Pro Leu Gln
          165          170          175

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Pro Ser Thr Ser Arg Ala His Lys Leu Pro Ser Arg Arg Gln Pro Gly
 180 185 190
 Leu Leu His Leu Gln Ser Cys Gly Asp Leu His Thr Phe Thr Pro Ala
 195 200 205
 Gly Arg Pro Arg Ala Glu Arg Arg Pro Arg Arg Val Glu Ala Glu Arg
 210 215 220
 Pro His Ser Leu Ile Gly Val Ile Arg Glu Thr Val Leu *
 225 230 235 237

<210> 1728
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 1728
 Met Arg Gly Ala Thr Arg Val Ser Ile Met Leu Leu Leu Val Thr Val
 1 5 10 15
 Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Val Gln Cys
 20 25 30
 Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg Gly Leu Arg
 35 40 45
 Met Cys Thr Pro Leu Gly Arg Glu Gly Glu Glu Cys His Pro Gly Ser
 50 55 60
 His Lys Ile Pro Phe Phe Arg Lys Arg Lys His His Thr Cys Pro Cys
 65 70 75 80
 Leu Pro Asn Leu Leu Cys Ser Arg Phe Pro Asp Gly Arg Tyr Arg Cys
 85 90 95
 Ser Met Asp Leu Lys Asn Ile Asn Phe *
 100 105

<210> 1729
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 1729
 Met Leu Thr Arg Lys Ile Lys Leu Trp Asp Ile Asn Ala His Ile Thr
 1 5 10 15
 Cys Arg Leu Cys Ser Gly Tyr Leu Ile Asp Ala Thr Thr Val Thr Glu
 20 25 30
 Cys Leu His Thr Phe Cys Arg Ser Cys Leu Val Lys Tyr Leu Glu Glu
 35 40 45
 Asn Ile Thr Cys Pro Thr Cys Arg Ile Val Ile His Gln Ser His Pro
 50 55 60
 Leu Gln Tyr Ile Gly His Asp Arg Thr Met Gln Asp Ile Val Tyr Lys
 65 70 75 80
 Leu Val Pro Gly Leu Gln Glu Ala Glu Met Arg Lys Gln Arg Glu Phe
 85 90 95
 Tyr His Lys Leu Gly Met Glu Val Pro Gly Asp Ile Lys Gly Glu Thr
 100 105 110
 Cys Ser Ala Lys Gln His Leu Asp Ser His Arg Asn Gly Glu Thr Lys
 115 120 125
 Ala Asp Asp Ser Ser Asn Lys Glu Ala Ala Glu Glu Lys Pro Glu Glu
 130 135 140
 Asp Asn Asp Tyr His Arg Ser Asp Glu Gln Val Ser Ile Cys Leu Glu
 145 150 155 160
 Cys Asn Ser Ser Lys Leu Arg Gly Leu Lys Arg Lys Trp Ile Arg Cys
 165 170 175

Ser Ala Gln Ala Thr Val Leu His Leu Lys Lys Phe Ile Ala Lys Lys
 180 185 190
 Leu Asn Leu Ser Ser Phe Asn Glu Leu Asp Ile Leu Cys Asn Glu Glu
 195 200 205
 Ile Leu Gly Lys Asp His Thr Leu Lys Phe Val Val Val Thr Arg Trp
 210 215 220
 Arg Phe Lys Lys Ala Pro Leu Leu Leu His Tyr Arg Pro Lys Met Asp
 225 230 235 240
 Leu Leu *
 242

<210> 1730
 <211> 378
 <212> PRT
 <213> Homo sapiens

<400> 1730
 Met Pro His Glu Val Val Arg Asp Glu Asn Ser Ser Val Tyr Ala Glu
 1 5 10 15
 Val Ser Arg Leu Leu Ala Thr Gly His Trp Lys Arg Leu Arg Arg
 20 25 30
 Asp Asn Pro Arg Phe Asn Leu Met Leu Gly Glu Arg Asn Arg Leu Pro
 35 40 45
 Phe Gly Arg Leu Gly His Glu Pro Gly Leu Val Gln Leu Val Asn Tyr
 50 55 60
 Tyr Arg Gly Ala Asp Lys Leu Cys Arg Lys Ala Ser Leu Val Lys Leu
 65 70 75 80
 Ile Lys Thr Ser Pro Glu Leu Ala Glu Ser Cys Thr Trp Phe Pro Glu
 85 90 95
 Ser Tyr Val Ile Tyr Pro Thr Asn Leu Lys Thr Pro Val Ala Pro Ala
 100 105 110
 Gln Asn Gly Ile Gln Pro Pro Ile Ser Asn Ser Arg Thr Asp Glu Arg
 115 120 125
 Glu Phe Phe Leu Ala Ser Tyr Asn Arg Lys Lys Glu Asp Gly Glu Gly
 130 135 140
 Asn Val Trp Ile Ala Lys Ser Ser Ala Gly Ala Lys Gly Glu Gly Ile
 145 150 155 160
 Leu Ile Ser Ser Glu Ala Ser Glu Leu Leu Asp Phe Ile Asp Asn Gln
 165 170 175
 Gly Gln Val His Val Ile Gln Lys Tyr Leu Glu His Pro Leu Leu Leu
 180 185 190
 Glu Pro Gly His Arg Lys Phe Asp Ile Arg Ser Trp Val Leu Val Asp
 195 200 205
 His Gln Tyr Asn Ile Tyr Leu Tyr Arg Glu Gly Val Leu Arg Thr Ala
 210 215 220
 Ser Glu Pro Tyr His Val Asp Asn Phe Gln Asp Lys Thr Cys His Leu
 225 230 235 240
 Thr Asn His Cys Ile Gln Lys Glu Tyr Ser Lys Asn Tyr Gly Lys Tyr
 245 250 255
 Glu Glu Gly Asn Glu Met Phe Phe Lys Glu Phe Asn Gln Tyr Leu Thr
 260 265 270
 Ser Ala Leu Asn Ile Thr Leu Glu Ser Ser Ile Leu Leu Gln Ile Lys
 275 280 285
 His Ile Ile Arg Asn Cys Leu Leu Ser Val Glu Pro Ala Ile Ser Thr
 290 295 300
 Lys His Leu Pro Tyr Gln Ser Phe Gln Leu Phe Gly Phe Asp Phe Met
 305 310 315 320
 Val Asp Glu Glu Leu Lys Val Trp Leu Ile Glu Val Asn Gly Ala Pro
 325 330 335
 Ala Cys Ala Gln Lys Leu Tyr Ala Glu Leu Cys Gln Gly Ile Val Asp
 340 345 350

Ile Ala Ile Ser Ser Val Phe Pro Pro Pro Asp Val Glu Gln Pro Gln
 355 360 365
 Thr Gln Pro Ala Ala Phe Ile Lys Leu *
 370 375 377

<210> 1731
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 1731
 Met Ala Leu Ala Leu Ala Ala Leu Ala Ala Val Glu Pro Ala Cys Gly
 1 5 10 15
 Ser Arg Tyr Gln Gln Leu Gln Asn Glu Glu Glu Ser Gly Glu Pro Glu
 20 25 30
 Gln Ala Ala Gly Asp Ala Pro Pro Pro Tyr Ser Ser Ile Ser Ala Glu
 35 40 45
 Ser Ala Ala Tyr Phe Asp Tyr Lys Asp Glu Ser Gly Phe Pro Lys Pro
 50 55 60
 Pro Ser Tyr Asn Val Ala Thr Thr Leu Pro Ser Tyr Asp Glu Ala Glu
 65 70 75 80
 Arg Thr Lys Ala Glu Ala Thr Ile Pro Leu Val Pro Gly Arg Asp Glu
 85 90 95
 Asp Phe Val Gly Arg Asp Asp Phe Asp Asp Ala Asp Gln Leu Arg Ile
 100 105 110
 Gly Asn Asp Gly Ile Phe Met Leu Thr Phe Phe Met Ala Phe Leu Phe
 115 120 125
 Asn Trp Ile Gly Phe Phe Leu Ser Phe Cys Leu Thr Thr Ser Ala Ala
 130 135 140
 Gly Arg Tyr Gly Ala Ile Ser Gly Phe Gly Leu Ser Leu Ile Lys Trp
 145 150 155 160
 Ile Leu Ile Val Arg Phe Ser Thr Tyr Phe Pro Gly Tyr Phe Asp Gly
 165 170 175
 Gln Tyr Trp Leu Trp Trp Val Phe Leu Val Leu Gly Phe Leu Leu Phe
 180 185 190
 Leu Arg Gly Phe Ile Asn Tyr Ala Lys Val Arg Lys Met Pro Glu Thr
 195 200 205
 Phe Ser Asn Leu Pro Arg Thr Arg Val Leu Phe Ile Tyr
 210 215 220 221

<210> 1732
 <211> 424
 <212> PRT
 <213> Homo sapiens

<400> 1732
 Met Ala Leu Ala Ser Gly Pro Ala Arg Arg Ala Leu Ala Gly Ser Gly
 1 5 10 15
 Gln Leu Gly Leu Gly Gly Phe Gly Ala Pro Arg Arg Gly Ala Tyr Glu
 20 25 30
 Trp Gly Val Arg Ser Thr Arg Lys Ser Glu Pro Pro Pro Leu Asp Arg
 35 40 45
 Val Tyr Glu Ile Pro Gly Leu Glu Pro Ile Thr Phe Ala Gly Lys Met
 50 55 60
 His Phe Val Pro Trp Leu Ala Arg Pro Ile Phe Pro Pro Trp Asp Arg
 65 70 75 80
 Gly Tyr Lys Asp Pro Arg Phe Tyr Arg Ser Pro Pro Leu His Glu His
 85 90 95

Pro Leu Tyr Lys Asp Gln Ala Cys Tyr Ile Phe His His Arg Cys Arg
 100 105 110
 Leu Leu Glu Gly Val Lys Gln Ala Leu Trp Leu Thr Lys Thr Lys Leu
 115 120 125
 Ile Glu Gly Leu Pro Glu Lys Val Leu Ser Leu Val Asp Asp Pro Arg
 130 135 140
 Asn His Ile Glu Asn Gln Asp Glu Cys Val Leu Asn Val Ile Ser His
 145 150 155 160
 Ala Arg Leu Trp Gln Thr Thr Glu Glu Ile Pro Lys Arg Glu Thr Tyr
 165 170 175
 Cys Pro Val Ile Val Asp Asn Leu Ile Gln Leu Cys Lys Ser Gln Ile
 180 185 190
 Leu Lys His Pro Ser Leu Ala Arg Arg Ile Cys Val Gln Asn Ser Thr
 195 200 205
 Phe Ser Ala Thr Trp Asn Arg Glu Ser Leu Leu Leu Gln Val Arg Gly
 210 215 220
 Ser Gly Gly Ala Arg Leu Ser Thr Lys Asp Pro Leu Pro Thr Ile Ala
 225 230 235 240
 Ser Arg Glu Glu Ile Glu Ala Thr Lys Asn His Val Leu Glu Thr Phe
 245 250 255
 Tyr Pro Ile Ser Pro Ile Ile Asp Leu His Glu Cys Asn Ile Tyr Asp
 260 265 270
 Val Lys Asn Asp Thr Gly Phe Gln Glu Gly Tyr Pro Tyr Pro Tyr Pro
 275 280 285
 His Thr Leu Tyr Leu Leu Asp Lys Ala Asn Leu Arg Pro His Arg Leu
 290 295 300
 Gln Pro Asp Gln Leu Arg Ala Lys Met Ile Leu Phe Ala Phe Gly Ser
 305 310 315 320
 Ala Leu Ala Gln Ala Arg Leu Leu Tyr Gly Asn Asp Ala Lys Val Leu
 325 330 335
 Glu Gln Pro Val Val Val Gln Ser Val Gly Thr Asp Gly Arg Val Phe
 340 345 350
 His Phe Leu Val Phe Gln Leu Asn Thr Thr Asp Leu Asp Cys Asn Glu
 355 360 365
 Gly Val Lys Asn Leu Ala Trp Val Asp Ser Asp Gln Leu Leu Tyr Gln
 370 375 380
 His Phe Trp Cys Leu Pro Val Ile Lys Lys Arg Val Val Val Glu Pro
 385 390 395 400
 Val Gly Pro Val Gly Phe Lys Pro Glu Thr Phe Arg Lys Phe Leu Ala
 405 410 415
 Leu Tyr Leu His Gly Ala Ala *
 420 423

<210> 1733

<211> 321

<212> PRT

<213> Homo sapiens

<400> 1733

Met Val Gly Tyr Asp Pro Lys Pro Asp Gly Arg Asn Asn Thr Lys Phe
 1 5 10 15
 Gln Val Ala Val Ala Gly Ser Val Ser Gly Leu Val Thr Arg Ala Leu
 20 25 30
 Ile Ser Pro Phe Asp Val Ile Lys Ile Arg Phe Gln Leu Gln His Glu
 35 40 45
 Arg Leu Ser Arg Ser Asp Pro Ser Ala Lys Tyr His Gly Ile Leu Gln
 50 55 60
 Ala Ser Arg Gln Ile Leu Gln Glu Glu Gly Pro Thr Ala Phe Trp Lys
 65 70 75 80
 Gly His Val Pro Ala Gln Ile Leu Ser Ile Gly Tyr Gly Ala Val Gln
 85 90 95

Phe Leu Ser Phe Glu Met Leu Thr Glu Leu Val His Arg Gly Ser Val
 100 105 110
 Tyr Asp Ala Arg Glu Phe Ser Val His Phe Val Cys Gly Gly Leu Ala
 115 120 125
 Ala Cys Met Ala Thr Leu Thr Val His Pro Val Asp Val Leu Arg Thr
 130 135 140
 Arg Phe Ala Ala Gln Gly Glu Pro Lys Val Tyr Asn Thr Leu Arg His
 145 150 155 160
 Ala Val Gly Thr Met Tyr Arg Ser Glu Gly Pro Gln Val Phe Tyr Lys
 165 170 175
 Gly Leu Ala Pro Thr Leu Ile Ala Ile Phe Pro Tyr Ala Gly Leu Gln
 180 185 190
 Phe Ser Cys Tyr Ser Ser Leu Lys His Leu Tyr Lys Trp Ala Ile Pro
 195 200 205
 Ala Glu Gly Lys Lys Asn Glu Asn Leu Gln Asn Leu Leu Cys Gly Ser
 210 215 220
 Gly Ala Gly Val Ile Ser Lys Thr Leu Thr Tyr Pro Leu Asp Leu Phe
 225 230 235 240
 Lys Lys Arg Leu Gln Val Gly Gly Phe Glu His Ala Arg Ala Ala Phe
 245 250 255
 Gly Gln Val Arg Arg Tyr Lys Gly Leu Met Asp Cys Ala Lys Gln Val
 260 265 270
 Leu Gln Lys Glu Gly Ala Leu Gly Phe Phe Lys Gly Leu Ser Pro Ser
 275 280 285
 Leu Leu Lys Ala Ala Leu Ser Thr Gly Phe Met Phe Phe Ser Tyr Glu
 290 295 300
 Phe Phe Cys Asn Val Phe His Cys Met Asn Arg Thr Ala Ser Gln Arg
 305 310 315 320

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<210> 1734
 <211> 498
 <212> PRT
 <213> Homo sapiens

<400> 1734
 Met Asp Pro Leu Gly Ala Pro Ser Gln Phe Val Asp Val Asp Thr Leu
 1 5 10 15
 Pro Ser Trp Gly Asp Ser Cys Gln Asp Glu Leu Asn Ser Ser Asp Thr
 20 25 30
 Thr Ala Glu Ile Phe Gln Glu Asp Thr Val Arg Ser Pro Phe Leu Tyr
 35 40 45
 Asn Lys Asp Val Asn Gly Lys Val Val Leu Trp Lys Gly Asp Val Ala
 50 55 60
 Leu Leu Asn Cys Thr Ala Ile Val Asn Thr Ser Asn Glu Ser Leu Thr
 65 70 75 80
 Asp Lys Asn Pro Val Ser Glu Ser Ile Phe Met Leu Ala Gly Pro Asp
 85 90 95
 Leu Lys Glu Asp Leu Gln Lys Leu Lys Gly Cys Arg Thr Gly Glu Ala
 100 105 110
 Lys Leu Thr Lys Gly Phe Asn Leu Ala Ala Arg Phe Ile Ile His Thr
 115 120 125
 Val Gly Pro Lys Tyr Lys Ser Arg Tyr Arg Thr Ala Ala Glu Ser Ser
 130 135 140
 Leu Tyr Ser Cys Tyr Arg Asn Val Leu Gln Leu Ala Lys Glu Gln Ser
 145 150 155 160
 Met Ser Ser Val Gly Phe Cys Val Ile Asn Ser Ala Lys Arg Gly Tyr
 165 170 175
 Pro Leu Glu Asp Ala Thr His Ile Ala Leu Arg Thr Val Arg Arg Phe
 180 185 190

Leu Glu Ile His Gly Glu Thr Ile Glu Lys Val Val Phe Ala Val Ser
 195 200 205
 Asp Leu Glu Glu Gly Thr Tyr Gln Lys Leu Leu Pro Leu Tyr Phe Pro
 210 215 220
 Arg Ser Leu Lys Glu Glu Asn Arg Ser Leu Pro Tyr Leu Pro Ala Asp
 225 230 235 240
 Ile Gly Asn Ala Glu Gly Glu Pro Val Val Pro Glu Arg Gln Ile Arg
 245 250 255
 Ile Ser Glu Lys Pro Gly Ala Pro Glu Asp Asn Gln Glu Glu Asp
 260 265 270
 Glu Gly Leu Gly Val Asp Leu Ser Phe Ile Gly Ser His Ala Phe Ala
 275 280 285
 Arg Met Glu Gly Asp Ile Asp Lys Gln Arg Lys Leu Ile Leu Gln Gly
 290 295 300
 Gln Leu Ser Glu Ala Ala Leu Gln Lys Gln His Gln Arg Asn Tyr Asn
 305 310 315 320
 Arg Trp Leu Cys Gln Ala Arg Ala Glu Asp Leu Ser Asp Ile Ala Ser
 325 330 335
 Leu Lys Ala Leu Tyr Gln Thr Gly Val Asp Asn Cys Gly Arg Thr Val
 340 345 350
 Met Val Val Val Gly Arg Asn Ile Pro Val Thr Leu Ile Asp Met Asp
 355 360 365
 Lys Ala Leu Leu Tyr Phe Ile His Val Met Asp His Ile Ala Val Lys
 370 375 380
 Glu Tyr Val Leu Val Tyr Phe His Thr Leu Thr Ser Glu Tyr Asn His
 385 390 395 400
 Leu Asp Ser Asp Phe Leu Lys Lys Leu Tyr Asp Val Val Asp Val Lys
 405 410 415
 Tyr Lys Arg Asn Leu Lys Ala Val Tyr Phe Val His Pro Thr Phe Arg
 420 425 430
 Ser Lys Val Ser Thr Trp Phe Phe Thr Thr Phe Ser Val Ser Gly Leu
 435 440 445
 Lys Asp Lys Ile His His Val Asp Ser Leu His Gln Leu Phe Ser Ala
 450 455 460
 Ile Ser Pro Glu Gln Ile Asp Phe Pro Pro Phe Val Leu Glu Tyr Asp
 465 470 475 480
 Ala Arg Glu Asn Gly Pro Tyr Tyr Thr Ser Tyr Pro Pro Ser Pro Asp
 485 490 495
 Leu *
 497

<210> 1735
 <211> 425
 <212> PRT
 <213> Homo sapiens

<400> 1735
 Met Ala Pro Glu Glu Asp Ala Gly Gly Glu Ala Leu Gly Gly Ser Phe
 1 5 10 15
 Trp Glu Ala Gly Asn Tyr Arg Arg Thr Val Gln Arg Val Glu Asp Gly
 20 25 30
 His Arg Leu Cys Gly Asp Leu Val Ser Cys Phe Gln Glu Arg Ala Arg
 35 40 45
 Ile Glu Lys Ala Tyr Ala Gln Gln Leu Ala Asp Trp Ala Arg Lys Trp
 50 55 60
 Arg Gly Thr Val Glu Lys Gly Pro Gln Tyr Gly Thr Leu Glu Lys Ala
 65 70 75 80
 Trp His Ala Phe Phe Thr Ala Ala Glu Arg Leu Ser Ala Leu His Leu
 85 90 95
 Glu Val Arg Glu Lys Leu Gln Gly Gln Asp Ser Glu Arg Val Arg Ala
 100 105 110


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Trp Gln Arg Gly Ala Phe His Arg Pro Val Leu Gly Gly Phe Arg Glu
      115                      120                      125
Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
      130                      135                      140
Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
      145                      150                      155                      160
Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
      165                      170                      175
Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
      180                      185                      190
Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
      195                      200                      205
Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
      210                      215                      220
Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
      225                      230                      235                      240
Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
      245                      250                      255
Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
      260                      265                      270
Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
      275                      280                      285
Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
      290                      295                      300
Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
      305                      310                      315                      320
Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
      325                      330                      335
Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
      340                      345                      350
Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
      355                      360                      365
Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
      370                      375                      380
Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
      385                      390                      395                      400
Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
      405                      410                      415
Asn Tyr Val Glu Cys Val Gly Ala *
      420                      424

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<210> 1736
 <211> 602
 <212> PRT
 <213> Homo sapiens

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<400> 1736
Met Ala Tyr Asp Asp Ser Val Lys Lys Glu Asp Cys Phe Asp Gly Asp
  1      5      10      15
His Thr Phe Glu Asp Ile Gly Leu Ala Ala Gly Arg Ser Gln Arg Glu
      20      25      30
Lys Lys Arg Ser Tyr Lys Asp Phe Leu Arg Glu Glu Glu Ile Ala
      35      40      45
Ala Gln Val Arg Asn Ser Ser Lys Lys Lys Leu Lys Asp Ser Glu Leu
      50      55      60
Tyr Phe Leu Gly Thr Asp Thr His Lys Lys Lys Arg Lys His Ser Ser
      65      70      75      80
Asp Asp Tyr Tyr Tyr Gly Asp Ile Ser Ser Leu Glu Ser Ser Gln Lys
      85      90      95
Lys Lys Lys Lys Ser Ser Pro Gln Ser Thr Asp Thr Ala Met Asp Leu
      100      105      110

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Leu Lys Ala Ile Thr Ser Pro Leu Ala Ala Gly Ser Lys Pro Ser Lys
 115 120 125
 Lys Thr Gly Glu Lys Ser Ser Gly Ser Ser Ser His Ser Glu Ser Lys
 130 135 140
 Lys Glu His His Arg Lys Lys Val Ser Gly Ser Ser Gly Glu Leu Pro
 145 150 155 160
 Leu Glu Asp Gly Gly Ser His Lys Ser Lys Lys Met Lys Pro Leu Tyr
 165 170 175
 Val Asn Thr Glu Thr Leu Thr Leu Arg Glu Pro Asp Gly Leu Lys Met
 180 185 190
 Lys Leu Ile Leu Ser Pro Lys Glu Lys Gly Ser Ser Ser Val Asp Glu
 195 200 205
 Glu Ser Phe Gln Tyr Pro Ser Gln Gln Ala Thr Val Lys Lys Ser Ser
 210 215 220
 Lys Lys Ser Ala Arg Asp Glu Gln Gly Ala Leu Leu Gly His Glu
 225 230 235 240
 Leu Gln Ser Phe Leu Lys Thr Ala Arg Lys Lys His Lys Ser Ser Ser
 245 250 255
 Asp Ala His Ser Ser Pro Gly Pro Glu Gly Cys Gly Ser Asp Ala Ser
 260 265 270
 Gln Phe Ala Glu Ser His Ser Ala Asn Leu Asp Leu Ser Gly Leu Glu
 275 280 285
 Pro Ile Leu Val Glu Ser Asp Ser Ser Ser Gly Gly Glu Leu Glu Ala
 290 295 300
 Gly Glu Leu Val Ile Asp Asp Ser Tyr Arg Glu Ile Lys Lys Lys Lys
 305 310 315 320
 Lys Ser Lys Lys Ser Lys Lys Lys Lys Asp Lys Glu Lys His Lys Glu
 325 330 335
 Lys Arg His Ser Lys Ser Lys Arg Ser Leu Gly Leu Ser Ala Val Pro
 340 345 350
 Val Gly Glu Val Thr Val Thr Ser Gly Pro Pro Pro Ser Ile Pro Tyr
 355 360 365
 Ala Gly Ala Ala Ala Pro Pro Leu Pro Leu Pro Gly Leu His Thr Asp
 370 375 380
 Gly His Ser Glu Lys Lys Lys Lys Lys Glu Lys Asp Lys Glu Arg
 385 390 395 400
 Glu Arg Gly Glu Lys Pro Lys Lys Lys Asn Met Ser Ala Tyr Gln Val
 405 410 415
 Phe Cys Lys Glu Tyr Arg Val Thr Ile Val Ala Asp His Pro Gly Ile
 420 425 430
 Asp Phe Gly Glu Leu Ser Lys Lys Leu Ala Glu Val Trp Lys Gln Leu
 435 440 445
 Pro Glu Lys Asp Lys Leu Ile Trp Lys Gln Lys Ala Gln Tyr Leu Gln
 450 455 460
 His Lys Gln Asn Lys Ala Glu Ala Thr Thr Val Lys Arg Lys Ala Ser
 465 470 475 480
 Ser Ser Glu Gly Ser Met Lys Val Lys Ala Ser Ser Val Gly Val Leu
 485 490 495
 Ser Pro Gln Lys Lys Ser Pro Pro Thr Thr Met Leu Leu Pro Ala Ser
 500 505 510
 Pro Ala Lys Ala Pro Glu Thr Glu Pro Ile Asp Val Ala Ala His Leu
 515 520 525
 Gln Leu Leu Gly Glu Ser Leu Ser Leu Ile Gly His Arg Leu Gln Glu
 530 535 540
 Thr Glu Gly Met Val Ala Val Ser Gly Ser Leu Ser Val Leu Leu Asp
 545 550 555 560
 Ser Ile Ile Cys Ala Leu Gly Pro Leu Ala Cys Leu Thr Thr Gln Leu
 565 570 575
 Pro Glu Leu Asn Gly Cys Pro Lys Gln Val Leu Ser Asn Thr Leu Asp
 580 585 590
 Asn Ile Ala Tyr Thr Thr Pro Gly Leu *
 595 600 601

<210> 1737
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 1737
 Met Ser Arg Met Phe Cys Gln Ala Ala Arg Val Asp Leu Thr Leu Asp
 1 5 10 15
 Pro Asp Thr Ala His Pro Ala Leu Met Leu Ser Pro Asp Arg Arg Gly
 20 25 30
 Val Arg Leu Ala Glu Arg Arg Gln Glu Val Ala Asp His Pro Lys Arg
 35 40 45
 Phe Ser Ala Asp Cys Cys Val Leu Gly Ala Gln Gly Phe Arg Ser Gly
 50 55 60
 Arg His Tyr Trp Glu Val Glu Val Gly Gly Arg Arg Gly Trp Ala Val
 65 70 75 80
 Gly Ala Ala Arg Glu Ser Thr His His Lys Glu Lys Val Gly Pro Gly
 85 90 95
 Gly Ser Ser Val Gly Ser Gly Asp Ala Ser Ser Ser Arg His His His
 100 105 110
 Arg Arg Arg Arg Leu His Leu Pro Gln Gln Pro Leu Leu Gln Arg Glu
 115 120 125
 Val Trp Cys Val Gly Thr Asn Gly Lys Arg Tyr Gln Ala Gln Ser Ser
 130 135 140
 Thr Glu Gln Thr Leu Leu Ser Pro Ser Glu Lys Pro Arg Arg Phe Gly
 145 150 155 160
 Val Tyr Leu Asp Tyr Glu Ala Gly Arg Leu Gly Phe Tyr Asn Ala Glu
 165 170 175
 Thr Leu Ala His Val His Thr Phe Ser Ala Ala Phe Leu Gly Glu Arg
 180 185 190
 Val Phe Pro Phe Phe Arg Val Leu Ser Lys Gly Thr Arg Ile Lys Leu
 195 200 205
 Cys Pro *
 210

<210> 1738
 <211> 351
 <212> PRT
 <213> Homo sapiens

<400> 1738
 Met Ser Lys Gly Leu Pro Glu Thr Arg Thr Asp Ala Ala Met Ser Glu
 1 5 10 15
 Leu Val Pro Glu Pro Arg Pro Lys Pro Ala Val Pro Met Lys Pro Met
 20 25 30
 Ser Ile Asn Ser Asn Leu Leu Gly Tyr Ile Gly Ile Asp Thr Ile Ile
 35 40 45
 Glu Gln Met Arg Lys Lys Thr Met Lys Thr Gly Phe Asp Phe Asn Ile
 50 55 60
 Met Val Val Gly Gln Ser Gly Leu Gly Lys Ser Thr Leu Val Asn Thr
 65 70 75 80
 Leu Phe Lys Ser Gln Val Ser Arg Lys Ala Ser Ser Trp Asn Arg Glu
 85 90 95
 Glu Lys Ile Pro Lys Thr Val Glu Ile Lys Ala Ile Gly His Val Ile
 100 105 110
 Glu Glu Gly Gly Val Lys Met Lys Leu Thr Val Ile Asp Thr Pro Gly
 115 120 125
 Phe Gly Asp Gln Ile Asn Asn Glu Asn Cys Trp Glu Pro Ile Glu Lys
 130 135 140

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Tyr Ile Asn Glu Gln Tyr Glu Lys Phe Leu Lys Glu Glu Val Asn Ile
145             150             155             160
Ala Arg Lys Lys Arg Ile Pro Asp Thr Arg Val His Cys Cys Leu Tyr
165             170             175
Phe Ile Ser Pro Thr Gly His Ser Leu Arg Pro Leu Asp Leu Glu Phe
180             185             190
Met Lys His Leu Ser Lys Val Val Asn Ile Ile Pro Val Ile Ala Lys
195             200             205
Ala Asp Thr Met Thr Leu Glu Glu Lys Ser Glu Phe Lys Gln Arg Val
210             215             220
Arg Lys Glu Leu Glu Val Asn Gly Ile Glu Phe Tyr Pro Gln Lys Glu
225             230             235             240
Phe Asp Glu Asp Leu Glu Asp Lys Thr Glu Asn Asp Lys Ile Arg Gln
245             250             255
Glu Ser Met Pro Phe Ala Val Val Gly Ser Asp Lys Glu Tyr Gln Val
260             265             270
Asn Gly Lys Arg Val Leu Gly Arg Lys Thr Pro Trp Gly Ile Ile Glu
275             280             285
Val Glu Asn Leu Asn His Cys Glu Phe Ala Leu Leu Arg Asp Phe Val
290             295             300
Ile Arg Thr His Leu Gln Asp Leu Lys Glu Val Thr His Asn Ile His
305             310             315             320
Tyr Glu Thr Tyr Arg Ala Lys Arg Leu Asn Asp Asn Gly Gly Leu Pro
325             330             335
Pro Val Ser Val Asp Thr Glu Glu Ser His Asp Ser Asn Pro *
340             345             350

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<210> 1739
<211> 478
<212> PRT
<213> Homo sapiens

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<400> 1739
Met Leu Arg Trp Leu Arg Asp Phe Val Leu Pro Thr Ala Ala Cys Gln
1             5             10             15
Asp Ala Glu Gln Pro Met Arg Tyr Glu Thr Leu Phe Gln Ala Leu Asp
20             25             30
Arg Asn Gly Asp Gly Val Val Asp Ile Gly Glu Leu Gln Glu Gly Leu
35             40             45
Arg Asn Leu Gly Ile Pro Leu Gly Gln Asp Ala Glu Glu Lys Ile Phe
50             55             60
Thr Thr Gly Asp Val Asn Lys Asp Gly Lys Leu Asp Phe Glu Glu Phe
65             70             75             80
Met Lys Tyr Leu Lys Asp His Glu Lys Lys Met Lys Leu Ala Phe Lys
85             90             95
Ser Leu Asp Lys Asn Asn Asp Gly Lys Ile Glu Ala Ser Glu Ile Val
100            105            110
Gln Ser Leu Gln Thr Leu Gly Leu Thr Ile Ser Glu Gln Gln Ala Glu
115            120            125
Leu Ile Leu Gln Ser Ile Asp Val Asp Gly Thr Met Thr Val Asp Trp
130            135            140
Asn Glu Trp Arg Asp Tyr Phe Leu Phe Asn Pro Val Thr Asp Ile Glu
145            150            155             160
Glu Ile Ile Arg Phe Trp Lys His Ser Thr Gly Ile Asp Ile Gly Asp
165            170             175
Ser Leu Thr Ile Pro Asp Glu Phe Thr Glu Asp Glu Lys Lys Ser Gly
180            185             190
Gln Trp Trp Arg Gln Leu Leu Ala Gly Gly Ile Ala Gly Ala Val Ser
195            200            205
Arg Thr Ser Thr Ala Pro Leu Asp Arg Leu Lys Ile Met Met Gln Val
210            215            220

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His Gly Ser Lys Ser Asp Lys Met Asn Ile Phe Gly Gly Phe Arg Gln
 225 230 235 240
 Met Val Lys Glu Gly Gly Ile Arg Ser Leu Trp Arg Gly Asn Gly Thr
 245 250 255
 Asn Val Ile Lys Ile Ala Pro Glu Thr Ala Val Lys Phe Trp Ala Tyr
 260 265 270
 Glu Gln Tyr Lys Lys Leu Leu Thr Glu Gly Gln Lys Ile Gly Thr
 275 280 285
 Phe Glu Arg Phe Ile Ser Gly Ser Met Ala Gly Ala Thr Ala Gln Thr
 290 295 300
 Phe Ile Tyr Pro Met Glu Val Met Lys Thr Arg Leu Ala Val Gly Lys
 305 310 315 320
 Thr Gly Gln Tyr Ser Gly Ile Tyr Asp Cys Ala Lys Lys Ile Leu Lys
 325 330 335
 His Glu Gly Leu Gly Ala Phe Tyr Lys Gly Tyr Val Pro Asn Leu Leu
 340 345 350
 Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu Leu Leu
 355 360 365
 Lys Ser Tyr Trp Leu Asp Asn Phe Ala Lys Asp Ser Val Asn Pro Gly
 370 375 380
 Val Met Val Leu Leu Gly Cys Gly Ala Leu Ser Ser Thr Cys Gly Gln
 385 390 395 400
 Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln Ala Gln
 405 410 415
 Ala Met Leu Glu Gly Ser Pro Gln Leu Asn Met Val Gly Leu Phe Arg
 420 425 430
 Arg Ile Ile Ser Lys Glu Gly Ile Pro Gly Leu Tyr Arg Gly Ile Thr
 435 440 445
 Pro Asn Phe Met Lys Val Leu Pro Ala Val Gly Ile Ser Tyr Val Val
 450 455 460
 Tyr Glu Asn Met Lys Gln Thr Leu Gly Val Thr Gln Lys *
 465 470 475 477

<210> 1740

<211> 776

<212> PRT

<213> Homo sapiens

<400> 1740

Met Leu Ala Pro Arg Gly Ala Ala Val Leu Leu Leu His Leu Val Leu
 1 5 10 15
 Gln Arg Trp Leu Ala Ala Gly Ala Gln Ala Thr Pro Gln Val Phe Asp
 20 25 30
 Leu Leu Pro Ser Ser Ser Gln Arg Leu Asn Pro Gly Ala Leu Leu Pro
 35 40 45
 Val Leu Thr Asp Pro Ala Leu Asn Asp Leu Tyr Val Ile Ser Thr Phe
 50 55 60
 Lys Leu Gln Thr Lys Ser Ser Ala Thr Ile Phe Gly Leu Tyr Ser Ser
 65 70 75 80
 Thr Asp Asn Ser Lys Tyr Phe Glu Phe Thr Val Met Gly Arg Leu Ser
 85 90 95
 Lys Ala Ile Leu Arg Tyr Leu Lys Asn Asp Gly Lys Val His Leu Val
 100 105 110
 Val Phe Asn Asn Leu Gln Leu Ala Asp Gly Arg Arg His Arg Ile Leu
 115 120 125
 Leu Arg Leu Ser Asn Leu Gln Arg Gly Ala Gly Ser Leu Glu Leu Tyr
 130 135 140
 Leu Asp Cys Ile Gln Val Asp Ser Val His Asn Leu Pro Arg Ala Phe
 145 150 155 160
 Ala Gly Pro Ser Gln Lys Pro Glu Thr Ile Glu Leu Arg Thr Phe Gln
 165 170 175

Arg	Lys	Pro	Gln	Asp	Phe	Leu	Glu	Glu	Leu	Lys	Leu	Val	Val	Arg	Gly	180	185	190
Ser	Leu	Phe	Gln	Val	Ala	Ser	Leu	Gln	Asp	Cys	Phe	Leu	Gln	Gln	Ser	195	200	205
Glu	Pro	Leu	Ala	Ala	Thr	Gly	Thr	Gly	Asp	Phe	Asn	Arg	Gln	Phe	Leu	210	215	220
Gly	Gln	Met	Thr	Gln	Leu	Asn	Gln	Leu	Leu	Gly	Glu	Val	Lys	Asp	Leu	225	230	235
Leu	Arg	Gln	Gln	Val	Lys	Glu	Thr	Ser	Phe	Leu	Arg	Asn	Thr	Ile	Ala	245	250	255
Glu	Cys	Gln	Ala	Cys	Gly	Pro	Leu	Lys	Phe	Gln	Ser	Pro	Thr	Pro	Ser	260	265	270
Thr	Val	Val	Ala	Pro	Ala	Pro	Pro	Ala	Pro	Pro	Thr	Arg	Pro	Pro	Arg	275	280	285
Arg	Cys	Asp	Ser	Asn	Pro	Cys	Phe	Arg	Gly	Val	Gln	Cys	Thr	Asp	Ser	290	295	300
Arg	Asp	Gly	Phe	Gln	Cys	Gly	Pro	Cys	Pro	Glu	Gly	Tyr	Thr	Gly	Asn	305	310	315
Gly	Ile	Thr	Cys	Ile	Asp	Val	Asp	Glu	Cys	Lys	Tyr	His	Pro	Cys	Tyr	325	330	335
Pro	Gly	Val	His	Cys	Ile	Asn	Leu	Ser	Pro	Gly	Phe	Arg	Cys	Asp	Ala	340	345	350
Cys	Pro	Val	Gly	Phe	Thr	Gly	Pro	Met	Val	Gln	Gly	Val	Gly	Ile	Ser	355	360	365
Phe	Ala	Lys	Ser	Asn	Lys	Gln	Val	Cys	Thr	Asp	Ile	Asp	Glu	Cys	Arg	370	375	380
Asn	Gly	Ala	Cys	Val	Pro	Asn	Ser	Ile	Cys	Val	Asn	Thr	Leu	Gly	Ser	385	390	395
Tyr	Arg	Cys	Gly	Pro	Cys	Lys	Pro	Gly	Tyr	Thr	Gly	Asp	Gln	Ile	Arg	405	410	415
Gly	Cys	Lys	Val	Glu	Arg	Asn	Cys	Arg	Asn	Pro	Glu	Leu	Asn	Pro	Cys	420	425	430
Ser	Val	Asn	Ala	Gln	Cys	Ile	Glu	Glu	Arg	Gln	Gly	Asp	Val	Thr	Cys	435	440	445
Val	Cys	Gly	Val	Gly	Trp	Ala	Gly	Asp	Gly	Tyr	Ile	Cys	Gly	Lys	Asp	450	455	460
Val	Asp	Ile	Asp	Ser	Tyr	Pro	Asp	Glu	Glu	Leu	Pro	Cys	Ser	Ala	Arg	465	470	475
Asn	Cys	Lys	Lys	Asp	Asn	Cys	Lys	Tyr	Val	Pro	Asn	Ser	Gly	Gln	Glu	485	490	495
Asp	Ala	Asp	Arg	Asp	Gly	Ile	Gly	Asp	Ala	Cys	Asp	Glu	Asp	Ala	Asp	500	505	510
Gly	Asp	Gly	Ile	Leu	Asn	Glu	Gln	Asp	Asn	Cys	Val	Leu	Ile	His	Asn	515	520	525
Val	Asp	Gln	Arg	Asn	Ser	Asp	Lys	Asp	Ile	Phe	Gly	Asp	Ala	Cys	Asp	530	535	540
Asn	Cys	Leu	Ser	Val	Leu	Asn	Asn	Asp	Gln	Lys	Asp	Thr	Asp	Gly	Asp	545	550	555
Gly	Arg	Gly	Asp	Ala	Cys	Asp	Asp	Asp	Met	Asp	Gly	Asp	Gly	Ile	Lys	565	570	575
Asn	Ile	Leu	Asp	Asn	Cys	Pro	Lys	Phe	Pro	Asn	Arg	Asp	Gln	Arg	Asp	580	585	590
Lys	Asp	Gly	Asp	Gly	Val	Gly	Asp	Ala	Cys	Asp	Ser	Cys	Pro	Asp	Val	595	600	605
Ser	Asn	Pro	Asn	Gln	Ser	Asp	Val	Asp	Asn	Asp	Leu	Val	Gly	Asp	Ser	610	615	620
Cys	Asp	Thr	Asn	Gln	Asp	Ser	Asp	Gly	Asp	Gly	His	Gln	Asp	Ser	Thr	625	630	635
Asp	Asn	Cys	Pro	Thr	Val	Ile	Asn	Ser	Ala	Gln	Leu	Asp	Thr	Asp	Lys	645	650	655
Asp	Gly	Ile	Gly	Asp	Glu	Cys	Asp	Asp	Asp	Asp	Asp	Asn	Asp	Gly	Ile	660	665	670
Pro	Asp	Leu	Val	Pro	Pro	Gly	Pro	Asp	Asn	Cys	Arg	Leu	Val	Pro	Asn	675	680	685

Pro Ala Gln Glu Asp Ser Asn Ser Asp Gly Val Gly Asp Ile Cys Glu
 690 695 700
 Ser Asp Phe Asp Gln Asp Gln Val Ile Asp Arg Ile Asp Val Cys Pro
 705 710 715 720
 Glu Asn Ala Glu Val Thr Leu Thr Asp Phe Arg Ala Tyr Gln Thr Val
 725 730 735
 Gly Leu Asp Pro Glu Gly Asp Ala Gln Ile Asp Pro Asn Trp Val Val
 740 745 750
 Leu Asn Gln Gly Met Glu Ile Val Gln Thr Met Asn Ser Asp Pro Gly
 755 760 765
 Leu Ala Val Gly Tyr Thr Ala Phe
 770 775 776

<210> 1741
 <211> 371
 <212> PRT
 <213> Homo sapiens

<400> 1741
 Met Glu Gly Leu Leu His Tyr Ile Asn Pro Ala His Ala Ile Ser Leu
 1 5 10 15
 Leu Ser Ala Leu Asn Glu Glu Arg Leu Lys Gly Gln Leu Cys Asp Val
 20 25 30
 Leu Leu Ile Val Gly Asp Gln Lys Phe Arg Ala His Lys Asn Val Leu
 35 40 45
 Ala Ala Ser Ser Glu Tyr Phe Gln Ser Leu Phe Thr Asn Lys Glu Asn
 50 55 60
 Glu Ser Gln Thr Val Phe Gln Leu Asp Phe Cys Glu Pro Asp Ala Phe
 65 70 75 80
 Asp Asn Val Leu Asn Tyr Ile Tyr Ser Ser Ser Leu Phe Val Glu Lys
 85 90 95
 Ser Ser Leu Ala Ala Val Gln Glu Leu Gly Tyr Ser Leu Gly Ile Ser
 100 105 110
 Phe Leu Thr Asn Ile Val Ser Lys Thr Pro Gln Ala Pro Phe Pro Thr
 115 120 125
 Cys Pro Asn Arg Lys Lys Val Phe Val Glu Asp Asp Glu Asn Ser Ser
 130 135 140
 Gln Lys Arg Ser Val Ile Val Cys Gln Ser Arg Asn Glu Ala Gln Gly
 145 150 155 160
 Lys Thr Val Ser Gln Asn Gln Pro Asp Val Ser His Thr Ser Arg Pro
 165 170 175
 Ser Pro Ser Ile Ala Val Lys Ala Asn Thr Asn Lys Pro His Val Pro
 180 185 190
 Lys Pro Ile Glu Pro Leu His Asn Leu Ser Leu Thr Glu Lys Ser Trp
 195 200 205
 Pro Lys Asp Ser Ser Val Val Tyr Ala Lys Ser Leu Glu His Ser Gly
 210 215 220
 Ser Leu Asp Asp Pro Asn Arg Ile Ser Leu Val Lys Arg Asn Ala Val
 225 230 235 240
 Leu Pro Ser Lys Pro Leu Gln Asp Arg Glu Ala Met Asp Asp Lys Pro
 245 250 255
 Gly Val Ser Gly Gln Leu Pro Lys Gly Lys Ala Leu Glu Leu Ala Leu
 260 265 270
 Lys Arg Pro Arg Pro Pro Val Leu Ser Val Cys Ser Ser Ser Glu Thr
 275 280 285
 Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln Gly Glu Asp
 290 295 300
 Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile Pro Ser Ser
 305 310 315 320
 Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly Pro Leu Val
 325 330 335

Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln Val Pro Val
 340 345 350
 Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ile Ile Phe Gly
 355 360 365
 Val Gln *
 370

<210> 1742
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 1742
 Met Leu Lys Asn Lys Gly His Ser Ser Lys Lys Asp Asn Leu Ala Val
 1 5 10 15
 Asn Ala Val Ala Leu Gln Asp His Ile Leu His Asp Leu Gln Leu Arg
 20 25 30
 Asn Leu Ser Val Ala Asp His Ser Lys Thr Gln Val Gln Lys Lys Glu
 35 40 45
 Asn Lys Ser Leu Lys Arg Asp Thr Lys Ala Ile Ile Asp Thr Gly Leu
 50 55 60
 Lys Lys Thr Thr Gln Cys Pro Lys Leu Glu Asp Ser Glu Lys Glu Tyr
 65 70 75 80
 Val Leu Asp Pro Lys Pro Pro Pro Leu Thr Leu Ala Gln Lys Leu Gly
 85 90 95
 Leu Ile Gly Pro Pro Pro Pro Leu Ser Ser Asp Glu Trp Glu Lys
 100 105 110
 Val Lys Gln Arg Ser Leu Leu Gln Gly Asp Ser Val Gln Pro Cys Pro
 115 120 125
 Ile Cys Lys Glu Glu Phe Glu Leu Arg Pro Gln Val Phe Ser Ile Arg
 130 135 140
 Gly Cys Cys Phe His Ala Pro Met Cys Ser Thr Lys His Val Phe Arg
 145 150 155 160
 Leu Leu Lys Ser Ser Gln Ile Arg Lys Pro Val Leu Ser Val Glu Arg
 165 170 175
 Thr Ser Ile Lys Pro Glu *
 180 182

<210> 1743
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 1743
 Met Ser Ser Asp Gly Glu Pro Leu Ser Arg Met Asp Ser Glu Asp Ser
 1 5 10 15
 Ile Ser Ser Thr Ile Met Asp Val Asp Ser Thr Ile Ser Ser Gly Arg
 20 25 30
 Ser Thr Pro Ala Met Met Asn Gly Gln Gly Ser Thr Thr Ser Ser Ser
 35 40 45
 Lys Asn Ile Ala Tyr Asn Cys Cys Trp Asp Gln Cys Gln Ala Cys Phe
 50 55 60
 Asn Ser Ser Pro Asp Leu Ala Asp His Ile Arg Ser Ile His Val Asp
 65 70 75 80
 Gly Gln Arg Gly Gly Val Phe Val Cys Leu Trp Lys Gly Cys Lys Val
 85 90 95
 Tyr Asn Thr Pro Ser Thr Ser Gln Ser Trp Leu Gln Arg His Met Leu
 100 105 110


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Thr His Ser Gly Asp Lys Pro Phe Lys Cys Val Val Gly Gly Cys Asn
      115                      120                      125
Ala Ser Phe Ala Ser Gln Gly Gly Leu Ala Arg His Val Pro Thr His
      130                      135                      140
Phe Ser Gln Gln Asn Ser Ser Lys Val Ser Ser Gln Pro Lys Ala Lys
145                      150                      155                      160
Glu Glu Ser Pro Ser Lys Ala Gly Met Asn Lys Arg Arg Lys Leu Lys
      165                      170                      175
Asn Lys Arg Arg Arg Ser Leu Pro Arg Pro His Asp Phe Phe Asp Ala
      180                      185                      190
Gln Thr Leu Asp Ala Ile Arg His Arg Ala Ile Cys Phe Asn Leu Ser
      195                      200                      205
Ala His Ile Glu Ser Leu Gly Lys Gly His Ser Val Val Phe His Ser
      210                      215                      220
Pro Val Ile Ala Lys Arg Lys Glu Asp Ser Gly Lys Ile Lys Leu Leu
225                      230                      235                      240
Leu His Trp Met Pro Glu Asp Ile Leu His Asp Val Trp Val Asn Glu
      245                      250                      255
Ser Glu Arg His Gln Leu Lys Thr Lys Val Val His Leu Ser Lys Leu
      260                      265                      270
Pro Lys Asp Thr Ala Leu Leu Leu Asp Pro Asn Ile Tyr Arg Thr Met
      275                      280                      285
Pro Gln Lys Arg Leu Lys Arg *
      290                      295

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<210> 1744
 <211> 215
 <212> PRT
 <213> Homo sapiens

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<400> 1744
Met Asp Asn Ala Gly Lys Glu Arg Glu Ala Val Gln Leu Met Ala Glu
 1                      5                      10                      15
Ala Glu Lys Arg Val Lys Ala Ser His Ser Phe Leu Arg Gly Leu Phe
      20                      25                      30
Gly Gly Asn Thr Arg Ile Glu Glu Ala Cys Glu Met Tyr Thr Arg Ala
      35                      40                      45
Ala Asn Met Phe Lys Met Ala Lys Asn Trp Ser Ala Ala Gly Asn Ala
      50                      55                      60
Phe Cys Gln Ala Ala Lys Leu His Met Gln Leu Gln Ser Lys His Asp
      65                      70                      75                      80
Ser Ala Thr Ser Phe Val Asp Ala Gly Asn Ala Tyr Lys Lys Ala Asp
      85                      90                      95
Pro Gln Glu Ala Ile Asn Cys Leu Asn Ala Ala Ile Asp Ile Tyr Thr
      100                      105                      110
Asp Met Gly Arg Phe Thr Ile Ala Ala Lys His His Ile Thr Ile Ala
      115                      120                      125
Glu Ile Tyr Glu Thr Glu Leu Val Asp Ile Glu Lys Ala Ile Ala His
      130                      135                      140
Tyr Glu Gln Ser Ala Asp Tyr Tyr Lys Gly Glu Glu Ser Asn Ser Ser
145                      150                      155                      160
Ala Asn Lys Cys Leu Leu Lys Val Ala Ala Tyr Ala Ala Gln Leu Glu
      165                      170                      175
Gln Tyr Gln Lys Ala Ile Glu Ile Tyr Glu Gln Val Gly Ala Asn Thr
      180                      185                      190
Met Glu Tyr Pro Phe Val Glu Tyr Arg Pro Lys Asp Thr Ser Ser Lys
      195                      200                      205
Leu Pro Phe Ala Thr Leu *
      210                      214

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<210> 1745
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 1745
 Met Ser Arg Arg Ala Pro Gly Ser Arg Leu Ser Ser Gly Gly Gly Gly
 1 5 10 15
 Gly Gly Thr Lys Tyr Pro Arg Ser Trp Asn Asp Trp Gln Pro Arg Thr
 20 25 30
 Asp Ser Ala Ser Ala Asp Pro Asp Asn Leu Lys Tyr Ser Ser Ser Arg
 35 40 45
 Asp Arg Gly Gly Ser Ser Ser Tyr Gly Leu Gln Pro Ser Asn Ser Ala
 50 55 60
 Val Val Ser Arg Gln Arg His Asp Asp Thr Arg Val His Ala Asp Ile
 65 70 75 80
 Gln Asn Asp Glu Lys Gly Gly Tyr Ser Val Asn Gly Gly Ser Gly Glu
 85 90 95
 Asn Thr Tyr Gly Arg Lys Ser Leu Gly Gln Glu Leu Arg Val Asn Asn
 100 105 110
 Val Thr Ser Pro Glu Phe Thr Ser Val Gln His Gly Ser Arg Ala Leu
 115 120 125
 Ala Thr Lys Asp Met Arg Lys Ser Gln Glu Arg Ser Met Ser Tyr Cys
 130 135 140
 Asp Glu Ser Arg Leu Ser Asn Leu Leu Arg Arg Ile Thr Arg Glu Asp
 145 150 155 160
 Asp Arg Asp *
 163

<210> 1746
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 1746
 Met Asp His Lys Gln Leu Cys Trp Ser His Pro Gln Lys Ser Gly Gln
 1 5 10 15
 Ser Ser Arg Ser Cys Cys Ile Cys Ser Asn Gln His Gly Leu Ile Trp
 20 25 30
 Lys Tyr Ser Leu Asn Met Cys Leu Gln Cys Cys His Gln Tyr Val Lys
 35 40 45
 Asp Ile Gly Phe Ile Lys Leu Asp *
 50 55 56

<210> 1747
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 1747
 Met Gly Leu Gln Arg Phe Arg Glu Ala Ala Ala Val Phe Gln Glu Thr
 1 5 10 15
 Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala Arg Glu Leu Arg Ser Cys
 20 25 30
 Leu Leu His Leu Thr Leu Gln Gly Gln Arg Gly Gly Ile Cys Ala Pro
 35 40 45

Pro Leu Ser Pro Gly Ala Leu Gln Pro Leu Pro His Ala Glu Leu Ala
 50 55 60
 Pro Ser Gly Leu Pro Ser Leu Arg Cys Pro Arg Ser Thr Ala Leu Arg
 65 70 75 80
 Ser Pro Gly Leu Ser Pro Leu Leu His *
 85 89

<210> 1748
 <211> 218
 <212> PRT
 <213> Homo sapiens

<400> 1748
 Met Val Lys Leu Gly Cys Ser Phe Ser Gly Lys Pro Gly Lys Asp Pro
 1 5 10 15
 Gly Asp Gln Asp Gly Ala Ala Met Asp Ser Val Pro Leu Ile Ser Pro
 20 25 30
 Leu Asp Ile Ser Gln Leu Gln Pro Leu Pro Asp Gln Val Val Ile
 35 40 45
 Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser Pro Asp Gln Gln Asn Phe
 50 55 60
 Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys Ser His Pro Glu Glu Gly
 65 70 75 80
 Arg Arg Leu Pro Thr Ala Arg Met Ile Ala Phe Ala Met Ala Leu Leu
 85 90 95
 Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr
 100 105 110
 Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr
 115 120 125
 Leu Glu Met Tyr Tyr Thr Glu Met Asp Pro Glu Arg His Arg Ser Ile
 130 135 140
 Leu Ala Ala Ile Gly Ala Tyr Pro Leu Ser Arg Lys His Gly Thr Glu
 145 150 155 160
 Thr Pro Ala Ala Trp Gly Asp Gly Tyr Arg Ala Ala Lys Glu Glu Arg
 165 170 175
 Lys Gly Pro Thr Gln Ala Gly Ala Ala Ala Ala Thr Glu Pro Pro
 180 185 190
 Gly Lys Pro Ser Ala Lys Ala Glu Lys Glu Ala Ala Arg Lys Ala Ala
 195 200 205
 Gly Ser Ala Ala Pro Pro Pro Ala Gln *
 210 215 217

<210> 1749
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 1749
 Met Ala Glu Ser Val Glu Arg Leu Gln Gln Arg Val Gln Glu Leu Glu
 1 5 10 15
 Arg Glu Leu Ala Gln Glu Arg Ser Leu Gln Val Pro Arg Ser Gly Asp
 20 25 30
 Gly Gly Gly Gly Arg Val Arg Ile Glu Lys Met Ser Ser Glu Val Val
 35 40 45
 Asp Ser Asn Pro Tyr Ser Arg Leu Met Ala Leu Lys Arg Met Gly Ile
 50 55 60
 Val Ser Asp Tyr Glu Lys Ile Arg Thr Phe Ala Val Ala Ile Val Gly
 65 70 75 80

Val Gly Gly Val Gly Ser Val Thr Ala Glu Met Leu Thr Arg Cys Gly
 85 90 95
 Ile Gly Lys Leu Leu Leu Phe Asp Tyr Asp Lys Val Glu Leu Ala Asn
 100 105 110
 Met Asn Arg Leu Phe Phe Gln Pro His Gln Ala Gly Leu Ser Lys Val
 115 120 125
 Gln Ala Ala Glu His Thr Leu Arg Asn Ile Asn Pro Asp Val Leu Phe
 130 135 140
 Glu Val His Asn Tyr Asn Ile Thr Thr Val Glu Asn Phe Gln His Phe
 145 150 155 160
 Met Asp Arg Ile Ser Asn Gly Gly Leu Glu Glu Gly Lys Pro Val Asp
 165 170 175
 Leu Val Leu Ser Cys Val Asp Asn Phe Glu Ala Arg Met Thr Ile Asn
 180 185 190
 Thr Ala Cys Asn Glu Leu Gly Gln Thr Trp Met Glu Ser Gly Val Ser
 195 200 205
 Glu Asn Ala Val Ser Gly His Ile Gln Leu Ile Ile Pro Gly Glu Ser
 210 215 220
 Ala Cys Phe Ala Cys Ala Pro Pro Leu Val Val Ala Ala Asn Ile Asp
 225 230 235 240
 Glu Lys Thr Leu Lys Arg Glu Gly Val Cys Ala Ala Ser Leu Pro Thr
 245 250 255
 Thr Met Gly Val Val Ala Gly Ile Leu Val Gln Asn Val Leu Lys Phe
 260 265 270
 Leu Leu Asn Phe Gly Thr Val Ser Phe Tyr Leu Gly Tyr Asn Ala Met
 275 280 285
 Gln Asp Phe Phe Pro Thr Met Ser Met Lys Pro Asn Pro Gln Cys Asp
 290 295 300
 Asp Arg Asn Cys Arg Lys Gln Gln Glu Glu Tyr Lys Lys Lys Val Ala
 305 310 315 320
 Ala Leu Pro Lys Gln Glu Val Ile Gln Glu Glu Glu Glu Ile Ile His
 325 330 335
 Glu Asp Asn Glu Trp Gly Ile Glu Leu Val Ser Glu Val Ser Glu Glu
 340 345 350
 Glu Leu Lys Asn Phe Ser Gly Pro Val Pro Asp Leu Pro Glu Gly Ile
 355 360 365
 Thr Val Ala Tyr Thr Ile Pro Lys Lys Gln Glu Asp Ser Val Thr Glu
 370 375 380
 Leu Thr Val Glu Asp Ser Gly Glu Ser Leu Glu Asp Leu Met Ala Lys
 385 390 395 400
 Met Lys Asn Met *
 404

<210> 1750

<211> 199

<212> PRT

<213> Homo sapiens

<400> 1750

Met Ala Asp Gln Arg Gln Arg Ser Leu Ser Thr Ser Gly Glu Ser Leu
 1 5 10 15
 Tyr His Val Leu Gly Leu Asp Lys Asn Ala Thr Ser Asp Asp Ile Lys
 20 25 30
 Lys Ser Tyr Arg Lys Leu Ala Leu Lys Tyr His Pro Asp Lys Asn Pro
 35 40 45
 Asp Asn Pro Glu Ala Ala Asp Lys Phe Lys Glu Ile Asn Asn Ala His
 50 55 60
 Ala Ile Leu Thr Asp Ala Thr Lys Arg Asn Ile Tyr Asp Lys Tyr Gly
 65 70 75 80
 Ser Leu Gly Leu Tyr Val Ala Glu Gln Phe Gly Glu Glu Asn Val Asn
 85 90 95

```

Thr Tyr Phe Val Leu Ser Ser Trp Trp Ala Lys Ala Leu Phe Val Phe
      100      105      110
Cys Gly Leu Leu Thr Cys Cys Tyr Cys Cys Cys Cys Leu Cys Cys Cys
      115      120      125
Phe Asn Cys Cys Cys Gly Lys Cys Lys Pro Lys Ala Pro Glu Gly Glu
      130      135      140
Glu Thr Glu Phe Tyr Val Ser Pro Glu Asp Leu Glu Ala Gln Leu Gln
      145      150      155      160
Ser Asp Glu Arg Glu Ala Thr Asp Thr Pro Ile Val Ile Gln Pro Ala
      165      170      175
Ser Ala Thr Glu Thr Thr Gln Leu Thr Ala Asp Ser His Pro Ser Tyr
      180      185      190
His Thr Asp Gly Phe Asn *
      195      198

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<210> 1751
<211> 953
<212> PRT
<213> Homo sapiens

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<400> 1751
Met Gly Ser Arg Ala Asp Gly Pro Arg Thr Ser Gly His Val Thr Gly
  1      5      10      15
Lys Met Ala Val Phe Pro Trp His Ser Arg Asn Arg Asn Tyr Lys Ala
      20      25      30
Glu Phe Ala Ser Cys Arg Leu Glu Ala Val Pro Leu Glu Phe Gly Asp
      35      40      45
Tyr His Pro Leu Lys Pro Ile Thr Val Thr Glu Ser Lys Thr Lys Lys
      50      55      60
Val Asn Arg Lys Gly Ser Thr Ser Ser Thr Ser Ser Ser Ser Ser
      65      70      75      80
Ser Val Val Asp Pro Leu Ser Ser Val Leu Asp Gly Thr Asp Pro Leu
      85      90      95
Ser Met Phe Ala Ala Thr Ala Asp Pro Ala Ala Leu Ala Ala Ala Met
      100      105      110
Asp Ser Ser Arg Arg Lys Arg Asp Arg Asp Asp Asn Ser Val Val Gly
      115      120      125
Ser Asp Phe Glu Pro Trp Thr Asn Lys Arg Gly Glu Ile Leu Ala Arg
      130      135      140
Tyr Thr Thr Thr Glu Lys Leu Ser Ile Asn Leu Phe Met Gly Ser Glu
      145      150      155      160
Lys Gly Lys Ala Gly Thr Ala Thr Leu Ala Met Ser Glu Lys Val Arg
      165      170      175
Thr Arg Leu Glu Glu Leu Asp Asp Phe Glu Glu Gly Ser Gln Lys Glu
      180      185      190
Leu Leu Asn Leu Thr Gln Gln Asp Tyr Val Asn Arg Ile Glu Glu Leu
      195      200      205
Asn Gln Ser Leu Lys Asp Ala Trp Ala Ser Asp Gln Lys Val Lys Ala
      210      215      220
Leu Lys Ile Val His Pro Gly Lys Leu Val Tyr Glu Arg Ile Phe Ser
      225      230      235      240
Met Cys Val Asp Ser Arg Ser Val Leu Pro Asp His Phe Ser Pro Glu
      245      250      255
Asn Ala Asn Asp Thr Ala Lys Glu Thr Cys Leu Asn Trp Phe Phe Lys
      260      265      270
Ile Ala Ser Ile Arg Glu Leu Ile Pro Arg Phe Tyr Val Glu Ala Ser
      275      280      285
Ile Leu Lys Cys Asn Lys Phe Leu Ser Lys Thr Gly Ile Ser Glu Cys
      290      295      300
Leu Pro Arg Leu Thr Cys Met Ile Arg Gly Ile Gly Asp Pro Leu Val
      305      310      315      320

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3600

Asp Ser Asn Asp Ser Leu Tyr Gly Gly Asp Ser Lys Phe Leu Ala Glu
 835 840 845
 Asn Asn Lys Leu Cys Glu Thr Val Met Ala Gln Ile Leu Glu His Leu
 850 855 860
 Lys Thr Leu Ala Lys Asp Glu Ala Leu Lys Arg Gln Ser Ser Leu Gly
 865 870 875 880
 Leu Ser Phe Phe Asn Ser Ile Leu Ala His Gly Asp Leu Arg Asn Asn
 885 890 895
 Lys Leu Asn Gln Leu Ser Val Asn Leu Trp His Leu Ala Gln Arg His
 900 905 910
 Gly Cys Ala Asp Thr Arg Thr Met Val Lys Thr Leu Glu Tyr Ile Lys
 915 920 925
 Lys Gln Ser Lys Gln Pro Asp Met Thr His Leu Thr Glu Leu Ala Leu
 930 935 940
 Arg Leu Pro Leu Gln Thr Arg Thr *
 945 950 952

<210> 1752
 <211> 510
 <212> PRT
 <213> Homo sapiens

<400> 1752
 Met Ala Glu Arg Ala Ala Leu Glu Glu Leu Val Lys Leu Gln Gly Glu
 1 5 10 15
 Arg Val Arg Gly Leu Lys Gln Gln Lys Ala Ser Ala Glu Leu Ile Glu
 20 25 30
 Glu Glu Val Ala Lys Leu Leu Lys Leu Lys Ala Gln Leu Gly Pro Asp
 35 40 45
 Glu Ser Lys Gln Lys Phe Val Leu Lys Thr Pro Lys Gly Thr Arg Asp
 50 55 60
 Tyr Ser Pro Arg Gln Met Ala Val Arg Glu Lys Val Phe Asp Val Ile
 65 70 75 80
 Ile Arg Cys Phe Lys Arg His Gly Ala Glu Val Ile Asp Thr Pro Val
 85 90 95
 Phe Glu Leu Lys Glu Thr Leu Met Gly Lys Tyr Gly Glu Asp Ser Lys
 100 105 110
 Leu Ile Tyr Asp Leu Lys Asp Gln Gly Gly Glu Leu Leu Ser Leu Arg
 115 120 125
 Tyr Asp Leu Thr Val Pro Phe Ala Arg Tyr Leu Ala Met Asn Lys Leu
 130 135 140
 Thr Asn Ile Lys Arg Tyr His Ile Ala Lys Val Tyr Arg Arg Asp Asn
 145 150 155 160
 Pro Ala Met Thr Arg Gly Arg Tyr Arg Glu Phe Tyr Gln Cys Asp Phe
 165 170 175
 Asp Ile Ala Gly Asn Phe Asp Pro Met Ile Pro Asp Ala Glu Cys Leu
 180 185 190
 Lys Ile Met Cys Glu Ile Leu Ser Ser Leu Gln Ile Gly Asp Phe Leu
 195 200 205
 Val Lys Val Asn Asp Arg Arg Ile Leu Asp Gly Met Phe Ala Ile Cys
 210 215 220
 Gly Val Ser Asp Ser Lys Phe Arg Thr Ile Cys Ser Ser Val Asp Lys
 225 230 235 240
 Leu Asp Lys Val Ser Trp Glu Glu Val Lys Asn Glu Met Val Gly Glu
 245 250 255
 Lys Gly Leu Ala Pro Glu Val Ala Asp Arg Ile Gly Asp Tyr Val Gln
 260 265 270
 Gln His Gly Gly Val Ser Leu Val Glu Gln Leu Leu Gln Asp Pro Lys
 275 280 285
 Leu Ser Gln Asn Lys Gln Ala Leu Glu Gly Leu Gly Asp Leu Lys Leu
 290 295 300

```

Leu Phe Glu Tyr Leu Thr Leu Phe Gly Ile Asp Asp Lys Ile Ser Phe
305                      310                      315                      320
Asp Leu Ser Leu Ala Arg Gly Leu Asp Tyr Tyr Thr Gly Val Ile Tyr
                      325                      330                      335
Glu Ala Val Leu Leu Gln Thr Pro Ala Gln Ala Gly Glu Glu Pro Leu
                      340                      345                      350
Gly Val Gly Ser Val Ala Ala Gly Gly Arg Tyr Asp Gly Leu Val Gly
                      355                      360                      365
Met Phe Asp Pro Lys Gly Arg Lys Val Pro Cys Val Gly Leu Ser Ile
                      370                      375                      380
Gly Val Glu Arg Ile Phe Ser Ile Val Glu Gln Arg Leu Glu Ala Leu
385                      390                      395                      400
Glu Glu Lys Ile Arg Thr Thr Glu Thr Gln Val Leu Val Ala Ser Ala
                      405                      410                      415
Gln Lys Lys Leu Leu Glu Glu Arg Leu Lys Leu Val Ser Glu Leu Trp
                      420                      425                      430
Asp Ala Gly Ile Lys Ala Glu Leu Leu Tyr Lys Lys Asn Pro Lys Leu
                      435                      440                      445
Leu Asn Gln Leu Gln Tyr Cys Glu Glu Ala Gly Ile Pro Leu Val Ala
450                      455                      460
Ile Ile Gly Glu Gln Glu Leu Lys Asp Gly Val Ile Lys Leu Arg Ser
465                      470                      475                      480
Val Thr Ser Arg Glu Glu Val Asp Val Arg Arg Glu Asp Leu Val Glu
                      485                      490                      495
Glu Ile Lys Arg Arg Thr Gly Gln Pro Leu Cys Ile Cys *
                      500                      505                      509

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<210> 1753

<211> 4545

<212> PRT

<213> Homo sapiens

<400> 1753

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Met Leu Thr Pro Pro Leu Leu Leu Leu Leu Pro Leu Leu Ser Ala Leu
1                      5                      10                      15
Val Ala Ala Ala Ile Asp Ala Pro Lys Thr Cys Ser Pro Lys Gln Phe
                      20                      25                      30
Ala Cys Arg Asp Gln Ile Thr Cys Ile Ser Lys Gly Trp Arg Cys Asp
                      35                      40                      45
Gly Glu Arg Asp Cys Pro Asp Gly Ser Asp Glu Ala Pro Glu Ile Cys
50                      55                      60
Pro Gln Ser Lys Ala Gln Arg Cys Gln Pro Asn Glu His Asn Cys Leu
65                      70                      75                      80
Gly Thr Glu Leu Cys Val Pro Met Ser Arg Leu Cys Asn Gly Val Gln
                      85                      90                      95
Asp Cys Met Asp Gly Ser Asp Glu Gly Pro His Cys Arg Glu Leu Gln
100                      105                      110
Gly Asn Cys Ser Arg Leu Gly Cys Gln His His Cys Val Pro Thr Leu
115                      120                      125
Asp Gly Pro Thr Cys Tyr Cys Asn Ser Ser Phe Gln Leu Gln Ala Asp
130                      135                      140
Gly Lys Thr Cys Lys Asp Phe Asp Glu Cys Ser Val Tyr Gly Thr Cys
145                      150                      155                      160
Ser Gln Leu Cys Thr Asn Thr Asp Gly Ser Phe Ile Cys Gly Cys Val
                      165                      170                      175
Glu Gly Tyr Leu Leu Gln Pro Asp Asn Arg Ser Cys Lys Ala Lys Asn
180                      185                      190
Glu Pro Val Asp Arg Pro Pro Val Leu Leu Ile Ala Asn Ser Gln Asn
195                      200                      205
Ile Leu Ala Thr Tyr Leu Ser Gly Ala Gln Val Ser Thr Ile Thr Pro
210                      215                      220

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Thr	Ser	Thr	Arg	Gln	Thr	Thr	Ala	Met	Asp	Phe	Ser	Tyr	Ala	Asn	Glu	225	230	235	240
Thr	Val	Cys	Trp	Val	His	Val	Gly	Asp	Ser	Ala	Ala	Gln	Thr	Gln	Leu	245	250	255	
Lys	Cys	Ala	Arg	Met	Pro	Gly	Leu	Lys	Gly	Phe	Val	Asp	Glu	His	Thr	260	265	270	
Ile	Asn	Ile	Ser	Leu	Ser	Leu	His	Val	Glu	Gln	Met	Ala	Ile	Asp		275	280	285	
Trp	Leu	Thr	Gly	Asn	Phe	Tyr	Phe	Val	Asp	Asp	Ile	Asp	Asp	Arg	Ile	290	295	300	
Phe	Val	Cys	Asn	Arg	Asn	Gly	Asp	Thr	Cys	Val	Thr	Leu	Leu	Asp	Leu	305	310	315	320
Glu	Leu	Tyr	Asn	Pro	Lys	Gly	Ile	Ala	Leu	Asp	Pro	Ala	Met	Gly	Lys	325	330	335	
Val	Phe	Phe	Thr	Asp	Tyr	Gly	Gln	Ile	Pro	Lys	Val	Glu	Arg	Cys	Asp	340	345	350	
Met	Asp	Gly	Gln	Asn	Arg	Thr	Lys	Leu	Val	Asp	Ser	Lys	Ile	Val	Phe	355	360	365	
Pro	His	Gly	Ile	Thr	Leu	Asp	Leu	Val	Ser	Arg	Leu	Val	Tyr	Trp	Ala	370	375	380	
Asp	Ala	Tyr	Leu	Asp	Tyr	Ile	Glu	Val	Val	Asp	Tyr	Glu	Gly	Lys	Gly	385	390	395	400
Arg	Gln	Thr	Ile	Ile	Gln	Gly	Ile	Leu	Ile	Glu	His	Leu	Tyr	Gly	Leu	405	410	415	
Thr	Val	Phe	Glu	Asn	Tyr	Leu	Tyr	Ala	Thr	Asn	Ser	Asp	Asn	Ala	Asn	420	425	430	
Ala	Gln	Gln	Lys	Thr	Ser	Val	Ile	Arg	Val	Asn	Arg	Phe	Asn	Ser	Thr	435	440	445	
Glu	Tyr	Gln	Val	Val	Thr	Arg	Val	Asp	Lys	Gly	Gly	Ala	Leu	His	Ile	450	455	460	
Tyr	His	Gln	Arg	Arg	Gln	Pro	Arg	Val	Arg	Ser	His	Ala	Cys	Glu	Asn	465	470	475	480
Asp	Gln	Tyr	Gly	Lys	Pro	Gly	Gly	Cys	Ser	Asp	Ile	Cys	Leu	Leu	Ala	485	490	495	
Asn	Ser	His	Lys	Ala	Arg	Thr	Cys	Arg	Cys	Arg	Ser	Gly	Phe	Ser	Leu	500	505	510	
Gly	Ser	Asp	Gly	Lys	Ser	Cys	Lys	Lys	Pro	Glu	His	Glu	Leu	Phe	Leu	515	520	525	
Val	Tyr	Gly	Lys	Gly	Arg	Pro	Gly	Ile	Ile	Arg	Gly	Met	Asp	Met	Gly	530	535	540	
Ala	Lys	Val	Pro	Asp	Glu	His	Met	Ile	Pro	Ile	Glu	Asn	Leu	Met	Asn	545	550	555	560
Pro	Arg	Ala	Leu	Asp	Phe	His	Ala	Glu	Thr	Gly	Phe	Ile	Tyr	Phe	Ala	565	570	575	
Asp	Thr	Thr	Ser	Tyr	Leu	Ile	Gly	Arg	Gln	Lys	Ile	Asp	Gly	Thr	Glu	580	585	590	
Arg	Glu	Thr	Ile	Leu	Lys	Asp	Gly	Ile	His	Asn	Val	Glu	Gly	Val	Ala	595	600	605	
Val	Asp	Trp	Met	Gly	Asp	Asn	Leu	Tyr	Trp	Thr	Asp	Asp	Gly	Pro	Lys	610	615	620	
Lys	Thr	Ile	Ser	Val	Ala	Arg	Leu	Glu	Lys	Ala	Ala	Gln	Thr	Arg	Lys	625	630	635	640
Thr	Leu	Ile	Glu	Gly	Lys	Met	Thr	His	Pro	Arg	Ala	Ile	Val	Val	Asp	645	650	655	
Pro	Leu	Asn	Gly	Trp	Met	Tyr	Trp	Thr	Asp	Trp	Glu	Glu	Asp	Pro	Lys	660	665	670	
Asp	Ser	Arg	Arg	Gly	Arg	Leu	Glu	Arg	Ala	Trp	Met	Asp	Gly	Ser	His	675	680	685	
Arg	Asp	Ile	Phe	Val	Thr	Ser	Lys	Thr	Val	Leu	Trp	Pro	Asn	Gly	Leu	690	695	700	
Ser	Leu	Asp	Ile	Pro	Ala	Gly	Arg	Leu	Tyr	Trp	Val	Asp	Ala	Phe	Tyr	705	710	715	720
Asp	Arg	Ile	Glu	Thr	Ile	Leu	Leu	Asn	Gly	Thr	Asp	Arg	Lys	Ile	Val	725	730	735	

Tyr Glu Gly Pro Glu Leu Asn His Ala Phe Gly Leu Cys His His Gly
 740 745 750
 Asn Tyr Leu Phe Trp Thr Glu Tyr Arg Ser Gly Ser Val Tyr Arg Leu
 755 760 765
 Glu Arg Gly Val Gly Gly Ala Pro Pro Thr Val Thr Leu Leu Arg Ser
 770 775 780
 Glu Arg Pro Pro Ile Phe Glu Ile Arg Met Tyr Asp Ala Gln Gln Gln
 785 790 795 800
 Gln Val Gly Thr Asn Lys Cys Arg Val Asn Asn Gly Gly Cys Ser Ser
 805 810 815
 Leu Cys Leu Ala Thr Pro Gly Ser Arg Gln Cys Ala Cys Ala Glu Asp
 820 825 830
 Gln Val Leu Asp Ala Asp Gly Val Thr Cys Leu Ala Asn Pro Ser Tyr
 835 840 845
 Val Pro Pro Pro Gln Cys Gln Pro Gly Glu Phe Ala Cys Ala Asn Ser
 850 855 860
 Arg Cys Ile Gln Glu Arg Trp Lys Cys Asp Gly Asp Asn Asp Cys Leu
 865 870 875 880
 Asp Asn Ser Asp Glu Ala Pro Ala Leu Cys His Gln His Thr Cys Pro
 885 890 895
 Ser Asp Arg Phe Lys Cys Glu Asn Asn Arg Cys Ile Pro Asn Arg Trp
 900 905 910
 Leu Cys Asp Gly Asp Asn Asp Cys Gly Asn Ser Glu Asp Glu Ser Asn
 915 920 925
 Ala Thr Cys Ser Ala Arg Thr Cys Pro Pro Asn Gln Phe Ser Cys Ala
 930 935 940
 Ser Gly Arg Cys Ile Pro Ile Ser Trp Thr Cys Asp Leu Asp Asp Asp
 945 950 955 960
 Cys Gly Asp Arg Ser Asp Glu Ser Ala Ser Cys Ala Tyr Pro Thr Cys
 965 970 975
 Phe Pro Leu Thr Gln Phe Thr Cys Asn Asn Gly Arg Cys Ile Asn Ile
 980 985 990
 Asn Trp Arg Cys Asp Asn Asp Asn Asp Cys Gly Asp Asn Ser Asp Glu
 995 1000 1005
 Ala Gly Cys Ser His Ser Cys Ser Ser Thr Gln Phe Lys Cys Asn Ser
 1010 1015 1020
 Gly Arg Cys Ile Pro Glu His Trp Thr Cys Asp Gly Asp Asn Asp Cys
 1025 1030 1035 1040
 Gly Asp Tyr Ser Asp Glu Thr His Ala Asn Cys Thr Asn Gln Ala Thr
 1045 1050 1055
 Arg Pro Pro Gly Gly Cys His Thr Asp Glu Phe Gln Cys Arg Leu Asp
 1060 1065 1070
 Gly Leu Cys Ile Pro Leu Arg Trp Arg Cys Asp Gly Asp Thr Asp Cys
 1075 1080 1085
 Met Asp Ser Ser Asp Glu Lys Ser Cys Glu Gly Val Thr His Val Cys
 1090 1095 1100
 Asp Pro Ser Val Lys Phe Gly Cys Lys Asp Ser Ala Arg Cys Ile Ser
 1105 1110 1115 1120
 Lys Ala Trp Val Cys Asp Gly Asp Asn Asp Cys Glu Asp Asn Ser Asp
 1125 1130 1135
 Glu Glu Asn Cys Glu Ser Leu Ala Cys Arg Pro Pro Ser His Pro Cys
 1140 1145 1150
 Ala Asn Asn Thr Ser Val Cys Leu Pro Pro Asp Lys Leu Cys Asp Gly
 1155 1160 1165
 Asn Asp Asp Cys Gly Asp Gly Ser Asp Glu Gly Glu Leu Cys Asp Gln
 1170 1175 1180
 Cys Ser Leu Asn Asn Gly Gly Cys Ser His Asn Cys Ser Val Ala Pro
 1185 1190 1195 1200
 Gly Glu Gly Ile Val Cys Ser Cys Pro Leu Gly Met Glu Leu Gly Pro
 1205 1210 1215
 Asp Asn His Thr Cys Gln Ile Gln Ser Tyr Cys Ala Lys His Leu Lys
 1220 1225 1230
 Cys Ser Gln Lys Cys Asp Gln Asn Lys Phe Ser Val Lys Cys Ser Cys
 1235 1240 1245

Tyr Glu Gly Trp Val Leu Glu Pro Asp Gly Glu Ser Cys Arg Ser Leu
 1250 1255 1260
 Asp Pro Phe Lys Pro Phe Ile Ile Phe Ser Asn Arg His Glu Ile Arg
 1265 1270 1275 1280
 Arg Ile Asp Leu His Lys Gly Asp Tyr Ser Val Leu Val Pro Gly Leu
 1285 1290 1295
 Arg Asn Thr Ile Ala Leu Asp Phe His Leu Ser Gln Ser Ala Leu Tyr
 1300 1305 1310
 Trp Thr Asp Val Val Glu Asp Lys Ile Tyr Arg Gly Lys Leu Leu Asp
 1315 1320 1325
 Asn Gly Ala Leu Thr Ser Phe Glu Val Val Ile Gln Tyr Gly Leu Ala
 1330 1335 1340
 Thr Pro Glu Gly Leu Ala Val Asp Trp Ile Ala Gly Asn Ile Tyr Trp
 1345 1350 1355 1360
 Val Glu Ser Asn Leu Asp Gln Ile Glu Val Ala Lys Leu Asp Gly Thr
 1365 1370 1375
 Leu Arg Thr Thr Leu Leu Ala Gly Asp Ile Glu His Pro Arg Ala Ile
 1380 1385 1390
 Ala Leu Asp Pro Arg Asp Gly Ile Leu Phe Trp Thr Asp Trp Asp Ala
 1395 1400 1405
 Ser Leu Pro Arg Ile Glu Ala Ala Ser Met Ser Gly Ala Gly Arg Arg
 1410 1415 1420
 Thr Val His Arg Glu Thr Gly Ser Gly Gly Trp Pro Asn Gly Leu Thr
 1425 1430 1435 1440
 Val Asp Tyr Leu Glu Lys Arg Ile Leu Trp Ile Asp Ala Arg Ser Asp
 1445 1450 1455
 Ala Ile Tyr Ser Ala Arg Tyr Asp Gly Ser Gly His Met Glu Val Leu
 1460 1465 1470
 Arg Gly His Glu Phe Leu Ser His Pro Phe Ala Val Thr Leu Tyr Gly
 1475 1480 1485
 Gly Glu Val Tyr Trp Thr Asp Trp Arg Thr Asn Thr Leu Ala Lys Ala
 1490 1495 1500
 Asn Lys Trp Thr Gly His Asn Val Thr Val Val Gln Arg Thr Asn Thr
 1505 1510 1515 1520
 Gln Pro Phe Asp Leu Gln Val Tyr His Pro Ser Arg Gln Pro Met Ala
 1525 1530 1535
 Pro Asn Pro Cys Glu Ala Asn Gly Gly Gln Gly Pro Cys Ser His Leu
 1540 1545 1550
 Cys Leu Ile Asn Tyr Asn Arg Thr Val Ser Cys Ala Cys Pro His Leu
 1555 1560 1565
 Met Lys Leu His Lys Asp Asn Thr Thr Cys Tyr Glu Phe Lys Lys Phe
 1570 1575 1580
 Leu Leu Tyr Ala Arg Gln Met Glu Ile Arg Gly Val Asp Leu Asp Ala
 1585 1590 1595 1600
 Pro Tyr Tyr Asn Tyr Ile Ile Ser Phe Thr Val Pro Asp Ile Asp Asn
 1605 1610 1615
 Val Thr Val Leu Asp Tyr Asp Ala Arg Glu Gln Arg Val Tyr Trp Ser
 1620 1625 1630
 Asp Val Arg Thr Gln Ala Ile Lys Arg Ala Phe Ile Asn Gly Thr Gly
 1635 1640 1645
 Val Glu Thr Val Val Ser Ala Asp Leu Pro Asn Ala His Gly Leu Ala
 1650 1655 1660
 Val Asp Trp Val Ser Arg Asn Leu Phe Trp Thr Ser Tyr Asp Thr Asn
 1665 1670 1675 1680
 Lys Lys Gln Ile Asn Val Ala Arg Leu Asp Gly Ser Phe Lys Asn Ala
 1685 1690 1695
 Val Val Gln Gly Leu Glu Gln Pro His Gly Leu Val Val His Pro Leu
 1700 1705 1710
 Arg Gly Lys Leu Tyr Trp Thr Asp Gly Asp Asn Ile Ser Met Ala Asn
 1715 1720 1725
 Met Asp Gly Ser Asn Arg Thr Leu Leu Phe Ser Gly Gln Lys Gly Pro
 1730 1735 1740
 Val Gly Leu Ala Ile Asp Phe Pro Glu Ser Lys Leu Tyr Trp Ile Ser
 1745 1750 1755 1760

Ser Gly Asn His Thr Ile Asn Arg Cys Asn Leu Asp Gly Ser Gly Leu
 1765 1770 1775
 Glu Val Ile Asp Ala Met Arg Ser Gln Leu Gly Lys Ala Thr Ala Leu
 1780 1785 1790
 Ala Ile Met Gly Asp Lys Leu Trp Trp Ala Asp Gln Val Ser Glu Lys
 1795 1800 1805
 Met Gly Thr Cys Ser Lys Ala Asp Gly Ser Gly Ser Val Val Leu Arg
 1810 1815 1820
 Asn Ser Thr Thr Leu Val Met His Met Lys Val Tyr Asp Glu Ser Ile
 1825 1830 1835 1840
 Gln Leu Asp His Lys Gly Thr Asn Pro Cys Ser Val Asn Asn Gly Asp
 1845 1850 1855
 Cys Ser Gln Leu Cys Leu Pro Thr Ser Glu Thr Thr Arg Ser Cys Met
 1860 1865 1870
 Cys Thr Ala Gly Tyr Ser Leu Arg Ser Gly Gln Gln Ala Cys Glu Gly
 1875 1880 1885
 Val Gly Ser Phe Leu Leu Tyr Ser Val His Glu Gly Ile Arg Gly Ile
 1890 1895 1900
 Pro Leu Asp Pro Asn Asp Lys Ser Asp Ala Leu Val Pro Val Ser Gly
 1905 1910 1915 1920
 Thr Ser Leu Ala Val Gly Ile Asp Phe His Ala Glu Asn Asp Thr Ile
 1925 1930 1935
 Tyr Trp Val Asp Met Gly Leu Ser Thr Ile Ser Arg Ala Lys Arg Asp
 1940 1945 1950
 Gln Thr Trp Arg Glu Asp Val Val Thr Asn Gly Ile Gly Arg Val Glu
 1955 1960 1965
 Gly Ile Ala Val Asp Trp Ile Ala Gly Asn Ile Tyr Trp Thr Asp Gln
 1970 1975 1980
 Gly Phe Asp Val Ile Glu Val Ala Arg Leu Asn Gly Ser Phe Arg Tyr
 1985 1990 1995 2000
 Val Val Ile Ser Gln Gly Leu Asp Lys Pro Arg Ala Ile Thr Val His
 2005 2010 2015
 Pro Glu Lys Gly Tyr Leu Phe Trp Thr Glu Trp Gly Gln Tyr Pro Arg
 2020 2025 2030
 Ile Glu Arg Ser Arg Leu Asp Gly Thr Glu Arg Val Val Leu Val Asn
 2035 2040 2045
 Val Ser Ile Ser Trp Pro Asn Gly Ile Ser Val Asp Tyr Gln Asp Gly
 2050 2055 2060
 Lys Leu Tyr Trp Cys Asp Ala Arg Thr Asp Lys Ile Glu Arg Ile Asp
 2065 2070 2075 2080
 Leu Glu Thr Gly Glu Asn Arg Glu Val Val Leu Ser Ser Asn Asn Met
 2085 2090 2095
 Asp Met Phe Ser Val Ser Val Phe Glu Asp Phe Ile Tyr Trp Ser Asp
 2100 2105 2110
 Arg Thr His Ala Asn Gly Ser Ile Lys Arg Gly Ser Lys Asp Asn Ala
 2115 2120 2125
 Thr Asp Ser Val Pro Leu Arg Thr Gly Ile Gly Val Gln Leu Lys Asp
 2130 2135 2140
 Ile Lys Val Phe Asn Arg Asp Arg Gln Lys Gly Thr Asn Val Cys Ala
 2145 2150 2155 2160
 Val Ala Asn Gly Gly Cys Gln Gln Leu Cys Leu Tyr Arg Gly Arg Gly
 2165 2170 2175
 Gln Arg Ala Cys Ala Cys Ala His Gly Met Leu Ala Glu Asp Gly Ala
 2180 2185 2190
 Ser Cys Arg Glu Tyr Ala Gly Tyr Leu Leu Tyr Ser Glu Arg Thr Ile
 2195 2200 2205
 Leu Lys Ser Ile His Leu Ser Asp Glu Arg Asn Leu Asn Ala Pro Val
 2210 2215 2220
 Gln Pro Phe Glu Asp Pro Glu His Met Lys Asn Val Ile Ala Leu Ala
 2225 2230 2235 2240
 Phe Asp Tyr Arg Ala Gly Thr Ser Pro Gly Thr Pro Asn Arg Ile Phe
 2245 2250 2255
 Phe Ser Asp Ile His Phe Gly Asn Ile Gln Gln Ile Asn Asp Asp Gly
 2260 2265 2270

Ser Arg Arg Ile Thr Ile Val Glu Asn Val Gly Ser Val Glu Gly Leu
 2275 2280 2285
 Ala Tyr His Arg Gly Trp Asp Thr Leu Tyr Trp Thr Ser Tyr Thr Thr
 2290 2295 2300
 Ser Thr Ile Thr Arg His Thr Val Asp Gln Thr Arg Pro Gly Ala Phe
 2305 2310 2315 2320
 Glu Arg Glu Thr Val Ile Thr Met Ser Gly Asp Asp His Pro Arg Ala
 2325 2330 2335
 Phe Val Leu Asp Glu Cys Gln Asn Leu Met Phe Trp Thr Asn Trp Asn
 2340 2345 2350
 Glu Gln His Pro Ser Ile Met Arg Ala Ala Leu Ser Gly Ala Asn Val
 2355 2360 2365
 Leu Thr Leu Ile Glu Lys Asp Ile Arg Thr Pro Asn Gly Leu Ala Ile
 2370 2375 2380
 Asp His Arg Ala Glu Lys Leu Tyr Phe Ser Asp Ala Thr Leu Asp Lys
 2385 2390 2395 2400
 Ile Glu Arg Cys Glu Tyr Asp Gly Ser His Arg Tyr Val Ile Leu Lys
 2405 2410 2415
 Ser Glu Pro Val His Pro Phe Gly Leu Ala Val Tyr Gly Glu His Ile
 2420 2425 2430
 Phe Trp Thr Asp Trp Val Arg Arg Ala Val Gln Arg Ala Asn Lys His
 2435 2440 2445
 Val Gly Ser Asn Met Lys Leu Leu Arg Val Asp Ile Pro Gln Gln Pro
 2450 2455 2460
 Met Gly Ile Ile Ala Val Ala Asn Asp Thr Asn Ser Cys Glu Leu Ser
 2465 2470 2475 2480
 Pro Cys Arg Ile Asn Asn Gly Gly Cys Gln Asp Leu Cys Leu Leu Thr
 2485 2490 2495
 His Gln Gly His Val Asn Cys Ser Cys Arg Gly Gly Arg Ile Leu Gln
 2500 2505 2510
 Asp Asp Leu Thr Cys Arg Ala Val Asn Ser Ser Cys Arg Ala Gln Asp
 2515 2520 2525
 Glu Phe Glu Cys Ala Asn Gly Glu Cys Ile Asn Phe Ser Leu Thr Cys
 2530 2535 2540
 Asp Gly Val Pro His Cys Lys Asp Lys Ser Asp Glu Lys Pro Ser Tyr
 2545 2550 2555 2560
 Cys Asn Ser Arg Arg Cys Lys Lys Thr Phe Arg Gln Cys Ser Asn Gly
 2565 2570 2575
 Arg Cys Val Ser Asn Met Leu Trp Cys Asn Gly Ala Asp Asp Cys Gly
 2580 2585 2590
 Asp Gly Ser Asp Glu Ile Pro Cys Asn Lys Thr Ala Cys Gly Val Gly
 2595 2600 2605
 Glu Phe Arg Cys Arg Asp Gly Thr Cys Ile Gly Asn Ser Ser Arg Cys
 2610 2615 2620
 Asn Gln Phe Val Asp Cys Glu Asp Ala Ser Asp Glu Met Asn Cys Ser
 2625 2630 2635 2640
 Ala Thr Asp Cys Ser Ser Tyr Phe Arg Leu Gly Val Lys Gly Val Leu
 2645 2650 2655
 Phe Gln Pro Cys Glu Arg Thr Ser Leu Cys Tyr Ala Pro Ser Trp Val
 2660 2665 2670
 Cys Asp Gly Ala Asn Asp Cys Gly Asp Tyr Ser Asp Glu Arg Asp Cys
 2675 2680 2685
 Pro Gly Val Lys Arg Pro Arg Cys Pro Leu Asn Tyr Phe Ala Cys Pro
 2690 2695 2700
 Ser Gly Arg Cys Ile Pro Met Ser Trp Thr Cys Asp Lys Glu Asp Asp
 2705 2710 2715 2720
 Cys Glu His Gly Glu Asp Glu Thr His Cys Asn Lys Phe Cys Ser Glu
 2725 2730 2735
 Ala Gln Phe Glu Cys Gln Asn His Arg Cys Ile Ser Lys Gln Trp Leu
 2740 2745 2750
 Cys Asp Gly Ser Asp Asp Cys Gly Asp Gly Ser Asp Glu Ala Ala His
 2755 2760 2765
 Cys Glu Gly Lys Thr Cys Gly Pro Ser Ser Phe Ser Cys Pro Gly Thr
 2770 2775 2780

His Val Cys Val Pro Glu Arg Trp Leu Cys Asp Gly Asp Lys Asp Cys
 2785 2790 2795 2800
 Ala Asp Gly Ala Asp Glu Ser Ile Ala Ala Gly Cys Leu Tyr Asn Ser
 2805 2810 2815
 Thr Cys Asp Asp Arg Glu Phe Met Cys Gln Asn Arg Gln Cys Ile Pro
 2820 2825 2830
 Lys His Phe Val Cys Asp His Asp Arg Asp Cys Ala Asp Gly Ser Asp
 2835 2840 2845
 Glu Ser Pro Glu Cys Glu Tyr Pro Thr Cys Gly Pro Ser Glu Phe Arg
 2850 2855 2860
 Cys Ala Asn Gly Arg Cys Leu Ser Ser Arg Gln Trp Glu Cys Asp Gly
 2865 2870 2875 2880
 Glu Asn Asp Cys His Asp Gln Ser Asp Glu Ala Pro Lys Asn Pro His
 2885 2890 2895
 Cys Thr Ser Pro Glu His Lys Cys Asn Ala Ser Ser Gln Phe Leu Cys
 2900 2905 2910
 Ser Ser Gly Arg Cys Val Ala Glu Ala Leu Leu Cys Asn Gly Gln Asp
 2915 2920 2925
 Asp Cys Gly Asp Ser Ser Asp Glu Arg Gly Cys His Ile Asn Glu Cys
 2930 2935 2940
 Leu Ser Arg Lys Leu Ser Gly Cys Ser Gln Asp Cys Glu Asp Leu Lys
 2945 2950 2955 2960
 Ile Gly Phe Lys Cys Arg Cys Arg Pro Gly Phe Arg Leu Lys Asp Asp
 2965 2970 2975
 Gly Arg Thr Cys Ala Asp Val Asp Glu Cys Ser Thr Thr Phe Pro Cys
 2980 2985 2990
 Ser Gln Arg Cys Ile Asn Thr His Gly Ser Tyr Lys Cys Leu Cys Val
 2995 3000 3005
 Glu Gly Tyr Ala Pro Arg Gly Gly Asp Pro His Ser Cys Lys Ala Val
 3010 3015 3020
 Thr Asp Glu Glu Pro Phe Leu Ile Phe Ala Asn Arg Tyr Tyr Leu Arg
 3025 3030 3035 3040
 Lys Leu Asn Leu Asp Gly Ser Asn Tyr Thr Leu Leu Lys Gln Gly Leu
 3045 3050 3055
 Asn Asn Ala Val Ala Leu Asp Phe Asp Tyr Arg Glu Gln Met Ile Tyr
 3060 3065 3070
 Trp Thr Asp Val Thr Thr Gln Gly Ser Met Ile Arg Arg Met His Leu
 3075 3080 3085
 Asn Gly Ser Asn Val Gln Val Leu His Arg Thr Gly Leu Ser Asn Pro
 3090 3095 3100
 Asp Gly Leu Ala Val Asp Trp Val Gly Gly Asn Leu Tyr Trp Cys Asp
 3105 3110 3115 3120
 Lys Gly Arg Asp Thr Ile Glu Val Ser Lys Leu Asn Gly Ala Tyr Arg
 3125 3130 3135
 Thr Val Leu Val Ser Ser Gly Leu Arg Glu Pro Arg Ala Leu Val Val
 3140 3145 3150
 Asp Val Gln Asn Gly Tyr Leu Tyr Trp Thr Asp Trp Gly Asp His Ser
 3155 3160 3165
 Leu Ile Gly Arg Ile Gly Met Asp Gly Ser Ser Arg Ser Val Ile Val
 3170 3175 3180
 Asp Thr Lys Ile Thr Trp Pro Asn Gly Leu Thr Leu Asp Tyr Val Thr
 3185 3190 3195 3200
 Glu Arg Ile Tyr Trp Ala Asp Ala Arg Glu Asp Tyr Ile Glu Phe Ala
 3205 3210 3215
 Ser Leu Asp Gly Ser Asn Arg His Val Val Leu Ser Gln Asp Ile Pro
 3220 3225 3230
 His Ile Phe Ala Leu Thr Leu Phe Glu Asp Tyr Val Tyr Trp Thr Asp
 3235 3240 3245
 Trp Glu Thr Lys Ser Ile Asn Arg Ala His Lys Thr Thr Gly Thr Asn
 3250 3255 3260
 Lys Thr Leu Leu Ile Ser Thr Leu His Arg Pro Met Asp Leu His Val
 3265 3270 3275 3280
 Phe His Ala Leu Arg Gln Pro Asp Val Pro Asn His Pro Cys Lys Val
 3285 3290 3295

Asn Asn Gly Gly Cys Ser Asn Leu Cys Leu Leu Ser Pro Gly Gly Gly
 3300 3305 3310
 His Lys Cys Ala Cys Pro Thr Asn Phe Tyr Leu Gly Ser Asp Gly Arg
 3315 3320 3325
 Thr Cys Val Ser Asn Cys Thr Ala Ser Gln Phe Val Cys Lys Asn Asp
 3330 3335 3340
 Lys Cys Ile Pro Phe Trp Trp Lys Cys Asp Thr Glu Asp Asp Cys Gly
 3345 3350 3355 3360
 Asp His Ser Asp Glu Pro Pro Asp Cys Pro Glu Phe Lys Cys Arg Pro
 3365 3370 3375
 Gly Gln Phe Gln Cys Ser Thr Gly Ile Cys Thr Asn Pro Ala Phe Ile
 3380 3385 3390
 Cys Asp Gly Asp Asn Asp Cys Gln Asp Asn Ser Asp Glu Ala Asn Cys
 3395 3400 3405
 Asp Ile His Val Cys Leu Pro Ser Gln Phe Lys Cys Thr Asn Thr Asn
 3410 3415 3420
 Arg Cys Ile Pro Gly Ile Phe Arg Cys Asn Gly Gln Asp Asn Cys Gly
 3425 3430 3435 3440
 Asp Gly Glu Asp Glu Arg Asp Cys Pro Glu Val Thr Cys Ala Pro Asn
 3445 3450 3455
 Gln Phe Gln Cys Ser Ile Thr Lys Arg Cys Ile Pro Arg Val Trp Val
 3460 3465 3470
 Cys Asp Arg Asp Asn Asp Cys Val Asp Gly Ser Asp Glu Pro Ala Asn
 3475 3480 3485
 Cys Thr Gln Met Thr Cys Gly Val Asp Glu Phe Arg Cys Lys Asp Ser
 3490 3495 3500
 Gly Arg Cys Ile Pro Ala Arg Trp Lys Cys Asp Gly Glu Asp Asp Cys
 3505 3510 3515 3520
 Gly Asp Gly Ser Asp Glu Pro Lys Glu Glu Cys Asp Glu Arg Thr Cys
 3525 3530 3535
 Glu Pro Tyr Gln Phe Arg Cys Lys Asn Asn Arg Cys Val Pro Gly Arg
 3540 3545 3550
 Trp Gln Cys Asp Tyr Asp Asn Asp Cys Gly Asp Asn Ser Asp Glu Glu
 3555 3560 3565
 Ser Cys Thr Pro Arg Pro Cys Ser Glu Ser Glu Phe Ser Cys Ala Asn
 3570 3575 3580
 Gly Arg Cys Ile Ala Gly Arg Trp Lys Cys Asp Gly Asp His Asp Cys
 3585 3590 3595 3600
 Ala Asp Gly Ser Asp Glu Lys Asp Cys Thr Pro Arg Cys Asp Met Asp
 3605 3610 3615
 Gln Phe Gln Cys Lys Ser Gly His Cys Ile Pro Leu Arg Trp Arg Cys
 3620 3625 3630
 Asp Ala Asp Ala Asp Cys Met Asp Gly Ser Asp Glu Glu Ala Cys Gly
 3635 3640 3645
 Thr Gly Val Arg Thr Cys Pro Leu Asp Glu Phe Gln Cys Asn Asn Thr
 3650 3655 3660
 Leu Cys Lys Pro Leu Ala Trp Lys Cys Asp Gly Glu Asp Asp Cys Gly
 3665 3670 3675 3680
 Asp Asn Ser Asp Glu Asn Pro Glu Glu Cys Ala Arg Phe Val Cys Pro
 3685 3690 3695
 Pro Asn Arg Pro Phe Arg Cys Lys Asn Asp Arg Val Cys Leu Trp Ile
 3700 3705 3710
 Gly Arg Gln Cys Asp Gly Thr Asp Asn Cys Gly Asp Gly Thr Asp Glu
 3715 3720 3725
 Glu Asp Cys Glu Pro Pro Thr Ala His Thr Thr His Cys Lys Asp Lys
 3730 3735 3740
 Lys Glu Phe Leu Cys Arg Asn Gln Arg Cys Leu Ser Ser Ser Leu Arg
 3745 3750 3755 3760
 Cys Asn Met Phe Asp Cys Gly Asp Gly Ser Asp Glu Glu Asp Cys
 3765 3770 3775
 Ser Ile Asp Pro Lys Leu Thr Ser Cys Ala Thr Asn Ala Ser Ile Cys
 3780 3785 3790
 Gly Asp Glu Ala Arg Cys Val Arg Thr Glu Lys Ala Ala Tyr Cys Ala
 3795 3800 3805

Cys Arg Ser Gly Phe His Thr Val Pro Gly Gln Pro Gly Cys Gln Asp
 3810 3815 3820
 Ile Asn Glu Cys Leu Arg Phe Gly Thr Cys Ser Gln Leu Cys Asn Asn
 3825 3830 3835 3840
 Thr Lys Gly Gly His Leu Cys Ser Cys Ala Arg Asn Phe Met Lys Thr
 3845 3850 3855
 His Asn Thr Cys Lys Ala Glu Gly Ser Glu Tyr Gln Val Leu Tyr Ile
 3860 3865 3870
 Ala Asp Asp Asn Glu Ile Arg Ser Leu Phe Pro Gly His Pro His Ser
 3875 3880 3885
 Ala Tyr Glu Gln Ala Phe Gln Gly Asp Glu Ser Val Arg Ile Asp Ala
 3890 3895 3900
 Met Asp Val His Val Lys Ala Gly Arg Val Tyr Trp Thr Asn Trp His
 3905 3910 3915 3920
 Thr Gly Thr Ile Ser Tyr Arg Ser Leu Pro Pro Ala Ala Pro Pro Thr
 3925 3930 3935
 Thr Ser Asn Arg His Arg Arg Gln Ile Asp Arg Gly Val Thr His Leu
 3940 3945 3950
 Asn Ile Ser Gly Leu Lys Met Pro Arg Gly Ile Ala Ile Asp Trp Val
 3955 3960 3965
 Ala Gly Asn Val Tyr Trp Thr Asp Ser Gly Arg Asp Val Ile Glu Val
 3970 3975 3980
 Ala Gln Met Lys Gly Glu Asn Arg Lys Thr Leu Ile Ser Gly Met Ile
 3985 3990 3995 4000
 Asp Glu Pro His Ala Ile Val Val Asp Pro Leu Arg Gly Thr Met Tyr
 4005 4010 4015
 Trp Ser Asp Trp Gly Asn His Pro Lys Ile Glu Thr Ala Ala Met Asp
 4020 4025 4030
 Gly Thr Leu Arg Glu Thr Leu Val Gln Asp Asn Ile Gln Trp Pro Thr
 4035 4040 4045
 Gly Leu Ala Val Asp Tyr His Asn Glu Arg Leu Tyr Trp Ala Asp Ala
 4050 4055 4060
 Lys Leu Ser Val Ile Gly Ser Ile Arg Leu Asn Gly Thr Asp Pro Ile
 4065 4070 4075 4080
 Val Ala Ala Asp Ser Lys Arg Gly Leu Ser His Pro Phe Ser Ile Asp
 4085 4090 4095
 Val Phe Glu Asp Tyr Ile Tyr Gly Val Thr Tyr Ile Asn Asn Arg Val
 4100 4105 4110
 Phe Lys Ile His Lys Phe Gly His Ser Pro Leu Val Asn Leu Thr Gly
 4115 4120 4125
 Gly Leu Ser His Ala Ser Asp Val Val Leu Tyr His Gln His Lys Gln
 4130 4135 4140
 Pro Glu Val Thr Asn Pro Cys Asp Arg Lys Lys Cys Glu Trp Leu Cys
 4145 4150 4155 4160
 Leu Leu Ser Pro Ser Gly Pro Val Cys Thr Cys Pro Asn Gly Lys Arg
 4165 4170 4175
 Leu Asp Asn Gly Thr Cys Val Pro Val Pro Ser Pro Thr Pro Pro Pro
 4180 4185 4190
 Asp Ala Pro Arg Pro Gly Thr Cys Asn Leu Gln Cys Phe Asn Gly Gly
 4195 4200 4205
 Ser Cys Phe Leu Asn Ala Arg Arg Gln Pro Lys Cys Arg Cys Gln Pro
 4210 4215 4220
 Arg Tyr Thr Gly Asp Lys Cys Glu Leu Asp Gln Cys Trp Glu His Cys
 4225 4230 4235 4240
 Arg Asn Gly Gly Thr Cys Ala Ala Ser Pro Ser Gly Met Pro Thr Cys
 4245 4250 4255
 Arg Cys Pro Thr Gly Phe Thr Gly Pro Lys Cys Thr Gln Gln Val Cys
 4260 4265 4270
 Ala Gly Tyr Cys Ala Asn Asn Ser Thr Cys Thr Val Asn Gln Gly Asn
 4275 4280 4285
 Gln Pro Gln Cys Arg Cys Leu Pro Gly Phe Leu Gly Asp Arg Cys Gln
 4290 4295 4300
 Tyr Arg Gln Cys Ser Gly Tyr Cys Glu Asn Phe Gly Thr Cys Gln Met
 4305 4310 4315 4320

Ala Ala Asp Gly Ser Arg Gln Cys Arg Cys Thr Ala Tyr Phe Glu Gly
 4325 4330 4335
 Ser Arg Cys Glu Val Asn Lys Cys Ser Arg Cys Leu Glu Gly Ala Cys
 4340 4345 4350
 Val Val Asn Lys Gln Ser Gly Asp Val Thr Cys Asn Cys Thr Asp Gly
 4355 4360 4365
 Arg Val Ala Pro Ser Cys Leu Thr Cys Val Gly His Cys Ser Asn Gly
 4370 4375 4380
 Gly Ser Cys Thr Met Asn Ser Lys Met Met Pro Glu Cys Gln Cys Pro
 4385 4390 4395 4400
 Pro His Met Thr Gly Pro Arg Cys Glu Glu His Val Phe Ser Gln Gln
 4405 4410 4415
 Gln Pro Gly His Ile Ala Ser Ile Leu Ile Pro Leu Leu Leu Leu Leu
 4420 4425 4430
 Leu Leu Val Leu Val Ala Gly Val Val Phe Trp Tyr Lys Arg Arg Val
 4435 4440 4445
 Gln Gly Ala Lys Gly Phe Gln His Gln Arg Met Thr Asn Gly Ala Met
 4450 4455 4460
 Asn Val Glu Ile Gly Asn Pro Thr Tyr Lys Met Tyr Glu Gly Gly Glu
 4465 4470 4475 4480
 Pro Asp Asp Val Gly Gly Leu Leu Asp Ala Asp Phe Ala Leu Asp Pro
 4485 4490 4495
 Asp Lys Pro Thr Asn Phe Thr Asn Pro Val Tyr Ala Thr Leu Tyr Met
 4500 4505 4510
 Gly Gly His Gly Ser Arg His Ser Leu Ala Ser Thr Asp Glu Lys Arg
 4515 4520 4525
 Glu Leu Leu Gly Arg Gly Pro Glu Asp Glu Ile Gly Asp Pro Leu Ala
 4530 4535 4540 4544

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<210> 1754
 <211> 393
 <212> PRT
 <213> Homo sapiens

<400> 1754
 Met Glu Leu Val Ala Gly Cys Tyr Glu Gln Val Leu Phe Gly Phe Ala
 1 5 10 15
 Val His Pro Glu Pro Glu Ala Cys Gly Asp His Glu Gln Trp Thr Leu
 20 25 30
 Val Ala Asp Phe Thr His His Ala His Thr Ala Ser Leu Ser Ala Val
 35 40 45
 Ala Val Asn Ser Arg Phe Val Val Thr Gly Ser Lys Asp Glu Thr Ile
 50 55 60
 His Ile Tyr Asp Met Lys Lys Lys Ile Glu His Gly Ala Leu Val His
 65 70 75 80
 His Ser Gly Thr Ile Thr Cys Leu Lys Phe Tyr Gly Asn Arg His Leu
 85 90 95
 Ile Ser Gly Ala Glu Asp Gly Leu Ile Cys Ile Trp Asp Ala Lys Lys
 100 105 110
 Trp Glu Cys Leu Lys Ser Ile Lys Ala His Lys Gly Gln Val Thr Phe
 115 120 125
 Leu Ser Ile His Pro Ser Gly Lys Leu Ala Leu Ser Val Gly Thr Asp
 130 135 140
 Lys Thr Leu Arg Thr Trp Asn Leu Val Glu Gly Arg Ser Ala Phe Ile
 145 150 155 160
 Lys Asn Ile Lys Gln Asn Ala His Ile Val Glu Trp Ser Pro Arg Gly
 165 170 175
 Glu Gln Tyr Val Val Ile Ile Gln Asn Lys Ile Asp Ile Tyr Gln Leu
 180 185 190

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Asp Thr Ala Ser Ile Ser Gly Thr Ile Thr Asn Glu Lys Arg Ile Ser
    195                200                205
Ser Val Lys Phe Leu Ser Glu Ser Val Leu Ala Val Ala Gly Asp Glu
    210                215                220
Glu Val Ile Arg Phe Phe Asp Cys Asp Ser Leu Val Cys Leu Cys Glu
    225                230                235                240
Phe Lys Ala His Glu Asn Arg Val Lys Asp Met Phe Ser Phe Glu Ile
    245                250                255
Pro Glu His His Val Ile Val Ser Ala Ser Ser Asp Gly Phe Ile Lys
    260                265                270
Met Trp Lys Leu Lys Gln Asp Lys Lys Val Pro Pro Ser Leu Leu Cys
    275                280                285
Glu Ile Asn Thr Asn Ala Arg Leu Thr Cys Leu Gly Val Trp Leu Asp
    290                295                300
Lys Val Ala Asp Met Lys Glu Ser Leu Pro Pro Ala Ala Glu Pro Ser
    305                310                315                320
Pro Val Ser Lys Glu Gln Ser Lys Ile Gly Lys Lys Glu Pro Gly Asp
    325                330                335
Thr Val His Lys Glu Glu Lys Arg Ser Lys Pro Asn Thr Lys Lys Arg
    340                345                350
Gly Leu Thr Gly Asp Ser Lys Lys Ala Thr Lys Glu Ser Gly Leu Ile
    355                360                365
Ser Thr Lys Lys Arg Lys Met Val Glu Met Leu Glu Lys Lys Arg Lys
    370                375                380
Lys Lys Lys Ile Lys Pro Met Gln *
    385                390                392

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<210> 1755

<211> 267

<212> PRT

<213> Homo sapiens

<400> 1755

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Met Glu Met Lys Lys Lys Ile Asn Leu Glu Leu Arg Asn Arg Ser Pro
    1                5                10                15
Glu Glu Val Thr Glu Leu Val Leu Asp Asn Cys Leu Cys Val Asn Gly
    20                25                30
Glu Ile Glu Gly Leu Asn Asp Thr Phe Lys Glu Leu Glu Phe Leu Ser
    35                40                45
Met Ala Asn Val Glu Leu Ser Ser Leu Ala Arg Leu Pro Ser Leu Asn
    50                55                60
Lys Leu Arg Lys Leu Glu Leu Ser Asp Asn Ile Ile Ser Gly Gly Leu
    65                70                75                80
Glu Val Leu Ala Glu Lys Cys Pro Asn Leu Thr Tyr Leu Asn Leu Ser
    85                90                95
Gly Asn Lys Ile Lys Asp Leu Ser Thr Val Glu Ala Leu Gln Asn Leu
    100               105               110
Lys Asn Leu Lys Ser Leu Asp Leu Phe Asn Cys Glu Ile Thr Asn Leu
    115               120               125
Glu Asp Tyr Arg Glu Ser Ile Phe Glu Leu Leu Gln Gln Ile Thr Tyr
    130               135               140
Leu Asp Gly Phe Asp Gln Glu Asp Asn Glu Ala Pro Asp Ser Glu Glu
    145               150               155                160
Glu Asp Asp Glu Asp Gly Asp Glu Asp Asp Glu Glu Glu Glu Asn
    165               170               175
Glu Ala Gly Pro Pro Glu Gly Tyr Glu Glu Glu Glu Glu Glu Glu
    180               185               190
Asp Glu Asp Glu Asp Glu Asp Glu Asp Glu Ala Gly Ser Glu Leu Gly
    195               200               205
Glu Gly Glu Glu Glu Val Gly Leu Ser Tyr Leu Met Lys Glu Glu Ile
    210               215               220

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Gln Asp Glu Glu Asp Asp Asp Asp Tyr Val Glu Glu Gly Glu Glu Glu
 225 230 235 240
 Glu Glu Glu Glu Glu Gly Gly Leu Arg Gly Glu Lys Arg Lys Arg Asp
 245 250 255
 Ala Glu Asp Asp Gly Glu Glu Glu Asp Asp *
 260 265 266

<210> 1756

<211> 238

<212> PRT

<213> Homo sapiens

<400> 1756

Met Ala Leu Glu Ala Ala Gly Gly Pro Pro Glu Glu Thr Leu Ser Leu
 1 5 10 15
 Trp Lys Arg Glu Gln Ala Arg Leu Lys Ala His Val Val Asp Arg Asp
 20 25 30
 Thr Glu Ala Trp Gln Arg Asp Pro Ala Phe Ser Gly Leu Gln Arg Val
 35 40 45
 Gly Gly Val Asp Val Ser Phe Val Lys Gly Asp Ser Val Arg Ala Cys
 50 55 60
 Ala Ser Leu Val Val Leu Ser Phe Pro Glu Leu Glu Val Leu Leu Val
 65 70 75 80
 Asp Gly Asn Gly Val Leu His His Arg Gly Phe Gly Val Ala Cys His
 85 90 95
 Leu Gly Val Leu Thr Asp Leu Pro Cys Val Gly Val Ala Lys Lys Leu
 100 105 110
 Leu Gln Val Asp Gly Leu Glu Asn Asn Ala Leu His Lys Glu Lys Ile
 115 120 125
 Arg Leu Leu Gln Thr Arg Gly Asp Ser Phe Pro Leu Leu Gly Asp Ser
 130 135 140
 Gly Thr Val Leu Gly Met Ala Leu Arg Ser His Asp Arg Ser Thr Arg
 145 150 155 160
 Pro Leu Tyr Ile Ser Val Gly His Arg Met Ser Leu Glu Ala Ala Val
 165 170 175
 Arg Leu Thr Cys Cys Cys Cys Arg Phe Arg Ile Pro Glu Pro Val Arg
 180 185 190
 Gln Ala Asp Ile Cys Ser Arg Glu His Ile Arg Lys Ser Leu Gly Leu
 195 200 205
 Pro Gly Pro Pro Thr Pro Arg Ser Pro Lys Ala Gln Arg Pro Val Ala
 210 215 220
 Cys Pro Lys Gly Asp Ser Gly Glu Ser Ser Ala Leu Cys *
 225 230 235 237

<210> 1757

<211> 283

<212> PRT

<213> Homo sapiens

<400> 1757

Met Ala Leu Glu Ala Ala Gly Gly Pro Pro Glu Glu Thr Leu Ser Leu
 1 5 10 15
 Trp Lys Arg Glu Gln Ala Arg Leu Lys Ala His Val Val Asp Arg Asp
 20 25 30
 Thr Glu Ala Trp Gln Arg Asp Pro Ala Phe Ser Gly Leu Gln Arg Val
 35 40 45
 Gly Gly Val Asp Val Ser Phe Val Lys Gly Asp Ser Val Arg Ala Cys
 50 55 60

Ala Ser Leu Val Val Leu Ser Phe Pro Glu Leu Glu Val Val Tyr Glu
 65 70 75 80
 Glu Ser Arg Met Val Ser Leu Thr Ala Pro Tyr Val Ser Gly Phe Leu
 85 90 95
 Ala Phe Arg Glu Val Pro Phe Leu Leu Glu Leu Val Gln Gln Leu Arg
 100 105 110
 Glu Lys Glu Pro Gly Leu Met Pro Gln Val Leu Leu Val Asp Gly Asn
 115 120 125
 Gly Val Leu His His Arg Gly Phe Gly Val Ala Cys His Leu Gly Val
 130 135 140
 Leu Thr Asp Leu Pro Cys Val Gly Val Ala Lys Lys Leu Leu Gln Val
 145 150 155 160
 Asp Gly Leu Glu Asn Asn Ala Leu His Lys Glu Lys Ile Arg Leu Leu
 165 170 175
 Gln Thr Arg Gly Asp Ser Phe Pro Leu Leu Gly Asp Ser Gly Thr Val
 180 185 190
 Leu Gly Met Ala Leu Arg Ser His Asp Arg Ser Thr Arg Pro Leu Tyr
 195 200 205
 Ile Ser Val Gly His Arg Met Ser Leu Glu Ala Ala Val Arg Leu Thr
 210 215 220
 Cys Cys Cys Cys Arg Phe Arg Ile Pro Glu Pro Val Arg Gln Ala Asp
 225 230 235 240
 Ile Cys Ser Arg Glu His Ile Arg Lys Ser Leu Gly Leu Pro Gly Pro
 245 250 255
 Pro Thr Pro Arg Ser Pro Lys Ala Gln Arg Pro Val Ala Cys Pro Lys
 260 265 270
 Gly Asp Ser Gly Glu Ser Ser Ala Leu Cys *
 275 280 282

<210> 1758

<211> 1029

<212> PRT

<213> Homo sapiens

<400> 1758

Met Asn Leu Phe Asn Leu Asp Arg Phe Gly Phe Glu Lys Arg Asn Lys
 1 5 10 15
 Ile Glu Glu Ala Pro Glu Ala Thr Pro Gln Pro Ser Gln Pro Gly Pro
 20 25 30
 Ser Ser Pro Ile Ser Leu Ser Ala Glu Glu Glu Asn Ala Glu Gly Glu
 35 40 45
 Val Ser Arg Ala Asn Thr Pro Asp Ser Asp Ile Thr Glu Lys Thr Glu
 50 55 60
 Asp Ser Ser Val Pro Glu Thr Pro Asp Asn Glu Arg Lys Ala Ser Ile
 65 70 75 80
 Ser Tyr Phe Lys Asn Gln Arg Gly Ile Gln Tyr Ile Asp Leu Ser Ser
 85 90 95
 Asp Ser Glu Asp Val Val Ser Pro Asn Cys Ser Asn Thr Val Gln Glu
 100 105 110
 Lys Thr Phe Asn Lys Asp Thr Val Ile Ile Val Ser Glu Pro Ser Glu
 115 120 125
 Asp Glu Glu Ser Gln Gly Leu Pro Thr Met Ala Arg Arg Asn Asp Asp
 130 135 140
 Ile Ser Glu Leu Glu Asp Leu Ser Glu Leu Glu Asp Leu Lys Asp Ala
 145 150 155 160
 Lys Leu Gln Thr Leu Lys Glu Leu Phe Pro Gln Arg Ser Asp Asn Asp
 165 170 175
 Leu Leu Lys Leu Ile Glu Ser Thr Ser Thr Met Asp Gly Ala Ile Ala
 180 185 190
 Ala Ala Leu Met Phe Gly Asp Ala Gly Gly Gly Pro Arg Lys Arg
 195 200 205

Lys Leu Ser Ser Ser Ser Glu Pro Tyr Glu Glu Asp Glu Phe Asn Asp
 210 215 220
 Asp Gln Ser Ile Lys Lys Thr Arg Leu Asp His Gly Glu Glu Ser Asn
 225 230 235 240
 Glu Ser Ala Glu Ser Ser Ser Asn Trp Glu Lys Gln Glu Ser Ile Val
 245 250 255
 Leu Lys Leu Gln Lys Glu Phe Pro Asn Phe Asp Lys Gln Glu Leu Arg
 260 265 270
 Glu Val Leu Lys Glu His Glu Trp Met Tyr Thr Glu Ala Leu Glu Ser
 275 280 285
 Leu Lys Val Phe Ala Glu Asp Gln Asp Met Gln Tyr Ala Ser Gln Ser
 290 295 300
 Glu Val Pro Asn Gly Lys Glu Val Ser Ser Arg Ser Gln Asn Tyr Pro
 305 310 315 320
 Lys Asn Ala Thr Lys Thr Lys Leu Lys Gln Lys Phe Ser Met Lys Ala
 325 330 335
 Gln Asn Gly Phe Asn Lys Lys Lys Lys Lys Asn Val Phe Asn Pro Lys
 340 345 350
 Arg Val Val Glu Asp Ser Glu Tyr Asp Ser Gly Ser Asp Val Gly Ser
 355 360 365
 Ser Leu Asp Glu Asp Tyr Ser Ser Gly Glu Glu Val Met Glu Asp Gly
 370 375 380
 Tyr Lys Gly Lys Ile Leu His Phe Leu Gln Asp Ala Ser Ile Gly Glu
 385 390 395 400
 Leu Thr Leu Ile Pro Gln Cys Ser Gln Lys Lys Ala Gln Lys Ile Thr
 405 410 415
 Glu Leu Arg Pro Phe Asn Ser Trp Glu Ala Leu Phe Thr Lys Met Ser
 420 425 430
 Lys Thr Asn Gly Leu Ser Glu Asp Leu Ile Trp His Cys Lys Thr Leu
 435 440 445
 Ile Gln Glu Arg Asp Val Val Ile Arg Leu Met Asn Lys Cys Glu Asp
 450 455 460
 Ile Ser Asn Lys Leu Thr Lys Gln Val Thr Met Leu Thr Gly Asn Gly
 465 470 475 480
 Gly Gly Trp Asn Ile Glu Gln Pro Ser Ile Leu Asn Gln Ser Leu Ser
 485 490 495
 Leu Lys Pro Tyr Gln Lys Val Gly Leu Asn Trp Leu Ala Leu Val His
 500 505 510
 Lys His Gly Leu Asn Gly Ile Leu Ala Asp Glu Met Gly Leu Gly Lys
 515 520 525
 Thr Ile Gln Ala Ile Ala Phe Leu Ala Tyr Leu Tyr Gln Glu Gly Asn
 530 535 540
 Asn Gly Pro His Leu Ile Val Val Pro Ala Ser Thr Ile Asp Asn Trp
 545 550 555 560
 Leu Arg Glu Val Asn Leu Trp Cys Pro Thr Leu Lys Val Leu Cys Tyr
 565 570 575
 Tyr Gly Ser Gln Glu Glu Arg Lys Gln Ile Arg Phe Asn Ile His Ser
 580 585 590
 Arg Tyr Glu Asp Tyr Asn Val Ile Val Thr Thr Tyr Asn Cys Ala Ile
 595 600 605
 Ser Ser Ser Asp Asp Arg Ser Leu Phe Arg Arg Leu Lys Leu Asn Tyr
 610 615 620
 Ala Ile Phe Asp Glu Gly His Met Leu Lys Asn Met Gly Ser Ile Arg
 625 630 635 640
 Tyr Gln His Leu Met Thr Ile Asn Ala Asn Asn Arg Leu Leu Leu Thr
 645 650 655
 Gly Thr Pro Val Gln Asn Asn Leu Leu Glu Leu Met Ser Leu Leu Asn
 660 665 670
 Phe Val Met Pro His Met Phe Ser Ser Ser Thr Ser Glu Ile Arg Arg
 675 680 685
 Met Phe Ser Ser Lys Thr Lys Ser Ala Asp Glu Gln Ser Ile Tyr Glu
 690 695 700
 Lys Glu Arg Ile Ala His Ala Lys Gln Ile Ile Lys Pro Phe Ile Leu
 705 710 715 720

Arg Arg Val Lys Glu Glu Val Leu Lys Gln Leu Pro Pro Lys Lys Asp
 725 730 735
 Arg Ile Glu Leu Cys Ala Met Ser Glu Lys Gln Glu Gln Leu Tyr Leu
 740 745 750
 Gly Leu Phe Asn Arg Leu Lys Lys Ser Ile Asn Asn Leu Val Thr Glu
 755 760 765
 Lys Asn Thr Glu Met Cys Asn Val Met Met Gln Leu Arg Lys Met Ala
 770 775 780
 Asn His Pro Leu Leu His Arg Gln Tyr Tyr Thr Ala Glu Lys Leu Lys
 785 790 795 800
 Glu Met Ser Gln Leu Met Leu Lys Glu Pro Thr His Cys Glu Ala Asn
 805 810 815
 Pro Asp Leu Ile Phe Glu Asp Met Glu Val Met Thr Asp Phe Glu Leu
 820 825 830
 His Val Leu Cys Lys Gln Tyr Arg His Ile Asn Asn Phe Gln Leu Asp
 835 840 845
 Met Asp Leu Ile Leu Asp Ser Gly Lys Phe Arg Val Leu Gly Cys Ile
 850 855 860
 Leu Ser Glu Leu Lys Gln Lys Gly Asp Arg Val Val Leu Phe Ser Gln
 865 870 875 880
 Phe Thr Met Met Leu Asp Ile Leu Glu Val Leu Leu Lys His His Gln
 885 890 895
 His Arg Tyr Leu Arg Leu Asp Gly Lys Thr Gln Ile Ser Glu Arg Ile
 900 905 910
 His Leu Ile Asp Glu Phe Asn Thr Asp Met Asp Ile Phe Val Phe Leu
 915 920 925
 Leu Ser Thr Lys Ala Gly Gly Leu Gly Ile Asn Leu Thr Ser Ala Asn
 930 935 940
 Val Val Ile Leu His Asp Ile Asp Cys Asn Pro Tyr Asn Asp Lys Gln
 945 950 955 960
 Ala Glu Asp Arg Cys His Arg Val Gly Gln Thr Lys Glu Val Leu Val
 965 970 975
 Ile Lys Leu Ile Ser Gln Gly Thr Ile Glu Glu Ser Met Leu Lys Ile
 980 985 990
 Asn Gln Gln Lys Leu Lys Leu Glu Gln Asp Met Thr Thr Val Asp Glu
 995 1000 1005
 Gly Asp Glu Gly Ser Met Pro Ala Asp Ile Ala Thr Leu Leu Lys Thr
 1010 1015 1020
 Ser Met Gly Leu *
 1025 1028

<210> 1759

<211> 300

<212> PRT

<213> Homo sapiens

<400> 1759

Met Gln Leu Pro Leu Arg Asn Ser Arg Val Asp Gly Phe Val Ser Asn
 1 5 10 15
 Leu Val Gly Ala Arg Ile Pro Arg Gly Lys Val Ile Thr Thr Ala Arg
 20 25 30
 Gly Ser Ser Thr Gly Glu Leu Glu Gly His Ala Ser Ser Arg Leu Pro
 35 40 45
 Pro Gln Pro Cys Gly Trp Gly Gln Ser Ser Asp Leu Ser Arg Ile
 50 55 60
 Asp Leu Asp Glu Leu Met Lys Lys Asp Glu Pro Pro Leu Asp Phe Pro
 65 70 75 80
 Asp Thr Leu Glu Gly Phe Glu Tyr Ala Phe Asn Glu Lys Gly Gln Leu
 85 90 95
 Arg His Ile Lys Thr Gly Glu Pro Phe Val Phe Asn Tyr Arg Glu Asp
 100 105 110

Leu His Arg Trp Asn Gln Lys Arg Tyr Glu Ala Leu Gly Glu Ile Ile
 115 120 125
 Thr Lys Tyr Val Tyr Glu Leu Leu Glu Lys Asp Cys Asn Leu Lys Lys
 130 135 140
 Val Ser Ile Pro Val Asp Ala Thr Glu Ser Glu Pro Lys Ser Phe Ile
 145 150 155 160
 Phe Met Ser Glu Asp Ala Leu Thr Asn Pro Gln Lys Leu Met Val Leu
 165 170 175
 Ile His Gly Ser Gly Val Val Arg Ala Gly Gln Trp Ala Arg Arg Leu
 180 185 190
 Ile Ile Asn Glu Asp Leu Asp Ser Gly Thr Gln Ile Pro Phe Ile Lys
 195 200 205
 Arg Ala Val Ala Glu Gly Tyr Gly Val Ile Val Leu Asn Pro Asn Glu
 210 215 220
 Asn Tyr Ile Glu Val Glu Lys Pro Lys Ile His Val Gln Ser Ser Ser
 225 230 235 240
 Asp Ser Ser Asp Glu Pro Ala Glu Lys Arg Glu Arg Lys Asp Lys Val
 245 250 255
 Ser Lys Glu Thr Lys Lys Arg Arg Asp Phe Tyr Glu Lys Tyr Arg Asn
 260 265 270
 Asn Lys Lys Lys Lys Lys Lys Thr Gln Lys Gly Gly Gln Val Gln Gln
 275 280 285
 Tyr Asn Leu Ile Met Ser His Asn Thr Ile His *
 290 295 299

<210> 1760

<211> 1054

<212> PRT

<213> Homo sapiens

<400> 1760

Met Ala Leu Asp Asn Leu Leu Ala Asn Leu Pro Pro Ala Lys Pro Gly
 1 5 10 15
 Lys Ser Ser Ser Leu Glu Met Thr Pro Tyr Asn Thr Pro Gln Leu Ser
 20 25 30
 Pro Ala Thr Thr Pro Ala Asn Lys Lys Asn Arg Leu Pro Ile Ala Thr
 35 40 45
 Arg Ser Arg Ser Arg Thr Asn Met Leu Met Asp Leu His Met Asp His
 50 55 60
 Glu Gly Ser Ser Gln Glu Thr Ile Gln Glu Val Gln Pro Glu Glu Val
 65 70 75 80
 Leu Val Ile Ser Leu Gly Thr Gly Pro Gln Leu Thr Pro Gly Met Met
 85 90 95
 Ser Glu Asn Glu Val Leu Asn Met Gln Leu Ser Asp Gly Gly Gln Gly
 100 105 110
 Asp Val Pro Val Asp Glu Asn Lys Leu His Gly Lys Pro Asp Lys Thr
 115 120 125
 Leu Arg Phe Ser Leu Cys Ser Asp Asn Leu Glu Gly Ile Ser Glu Gly
 130 135 140
 Pro Ser Asn Arg Ser Asn Ser Val Ser Ser Leu Asp Leu Glu Gly Glu
 145 150 155 160
 Ser Val Ser Glu Leu Gly Ala Gly Pro Ser Gly Ser Asn Gly Val Glu
 165 170 175
 Ala Leu Gln Leu Leu Glu His Glu Gln Ala Thr Thr Gln Asp Asn Leu
 180 185 190
 Asp Asp Lys Leu Arg Lys Phe Glu Ile Arg Asp Met Met Gly Leu Thr
 195 200 205
 Asp Asp Arg Asp Ile Ser Glu Thr Val Ser Glu Thr Trp Ser Thr Asp
 210 215 220
 Val Leu Gly Ser Asp Phe Asp Pro Asn Ile Asp Glu Asp Arg Leu Gln
 225 230 235 240

Glu Ile Ala Gly Ala Ala Ala Glu Asn Met Leu Gly Ser Leu Leu Cys
 245 250 255
 Leu Pro Gly Ser Gly Ser Val Leu Leu Asp Pro Cys Thr Gly Ser Thr
 260 265 270
 Ile Ser Glu Thr Thr Ser Glu Ala Trp Ser Val Glu Val Leu Pro Ser
 275 280 285
 Asp Ser Glu Ala Pro Asp Leu Lys Gln Glu Glu Arg Leu Gln Glu Leu
 290 295 300
 Glu Ser Cys Ser Gly Leu Gly Ser Thr Ser Asp Asp Thr Asp Val Arg
 305 310 315 320
 Glu Val Ser Ser Arg Pro Ser Thr Pro Gly Leu Ser Val Val Ser Gly
 325 330 335
 Ile Ser Ala Thr Ser Glu Asp Ile Pro Asn Lys Ile Glu Asp Leu Arg
 340 345 350
 Ser Glu Cys Ser Ser Asp Phe Gly Gly Lys Asp Ser Val Thr Ser Pro
 355 360 365
 Asp Met Asp Glu Ile Thr His Asp Phe Leu Tyr Ile Leu Gln Pro Lys
 370 375 380
 Gln His Phe Gln His Ile Glu Ala Glu Ala Asp Met Arg Ile Gln Leu
 385 390 395 400
 Ser Ser Ser Ala His Gln Leu Thr Ser Pro Pro Ser Gln Ser Glu Ser
 405 410 415
 Leu Leu Ala Met Phe Asp Pro Leu Ser Ser His Glu Gly Ala Ser Ala
 420 425 430
 Val Val Arg Pro Lys Val His Tyr Ala Arg Pro Ser His Pro Pro Pro
 435 440 445
 Asp Pro Pro Ile Leu Glu Gly Ala Val Gly Gly Asn Glu Ala Arg Leu
 450 455 460
 Pro Asn Phe Gly Ser His Val Leu Thr Pro Ala Glu Met Glu Ala Phe
 465 470 475 480
 Lys Gln Arg His Ser Tyr Pro Glu Arg Leu Val Arg Ser Arg Ser Ser
 485 490 495
 Asp Ile Val Ser Ser Val Arg Arg Pro Met Ser Asp Pro Ser Trp Asn
 500 505 510
 Arg Arg Pro Gly Asn Glu Glu Arg Glu Leu Pro Pro Ala Ala Ala Ile
 515 520 525
 Gly Ala Thr Ser Leu Val Ala Ala Pro His Ser Ser Ser Ser Pro
 530 535 540
 Ser Lys Asp Ser Ser Arg Gly Glu Thr Glu Glu Arg Lys Asp Ser Asp
 545 550 555 560
 Asp Glu Lys Ser Asp Arg Asn Arg Pro Trp Trp Arg Lys Arg Phe Val
 565 570 575
 Ser Ala Met Pro Lys Ala Pro Ile Pro Phe Arg Lys Lys Glu Lys Gln
 580 585 590
 Glu Lys Asp Lys Asp Asp Leu Gly Pro Asp Arg Phe Ser Thr Leu Thr
 595 600 605
 Asp Asp Pro Ser Pro Arg Leu Ser Ala Gln Ala Gln Val Ala Glu Asp
 610 615 620
 Ile Leu Asp Lys Tyr Arg Asn Ala Ile Lys Arg Thr Ser Pro Ser Asp
 625 630 635 640
 Gly Ala Met Ala Asn Tyr Glu Ser Thr Glu Val Met Gly Asp Gly Glu
 645 650 655
 Ser Ala His Asp Ser Pro Arg Asp Glu Ala Leu Gln Asn Ile Ser Ala
 660 665 670
 Asp Asp Leu Pro Asp Ser Ala Ser Gln Ala Ala His Pro Gln Asp Ser
 675 680 685
 Ala Phe Ser Tyr Arg Asp Ala Lys Lys Lys Leu Arg Leu Ala Leu Cys
 690 695 700
 Ser Ala Asp Ser Val Ala Phe Pro Val Leu Thr His Ser Thr Arg Asn
 705 710 715 720
 Gly Leu Pro Asp His Thr Asp Pro Glu Asp Asn Glu Ile Val Cys Phe
 725 730 735
 Leu Lys Val Gln Ile Ala Glu Ala Ile Asn Leu Gln Asp Lys Asn Leu
 740 745 750

Met	Ala	Gln	Leu	Gln	Glu	Thr	Met	Arg	Cys	Val	Cys	Arg	Phe	Asp	Asn
	755						760					765			
Arg	Thr	Cys	Arg	Lys	Leu	Leu	Ala	Ser	Ile	Ala	Glu	Asp	Tyr	Arg	Lys
	770						775					780			
Arg	Ala	Pro	Tyr	Ile	Ala	Tyr	Leu	Thr	Arg	Cys	Arg	Gln	Gly	Leu	Gln
	785				790					795					800
Thr	Thr	Gln	Ala	His	Leu	Glu	Arg	Leu	Leu	Gln	Arg	Val	Leu	Arg	Asp
				805					810						815
Lys	Glu	Val	Ala	Asn	Arg	Tyr	Phe	Thr	Thr	Val	Cys	Val	Arg	Leu	Leu
			820					825					830		
Leu	Glu	Ser	Lys	Glu	Lys	Lys	Ile	Arg	Glu	Phe	Ile	Gln	Asp	Phe	Gln
		835					840					845			
Lys	Leu	Thr	Ala	Ala	Asp	Asp	Lys	Thr	Ala	Gln	Val	Glu	Asp	Phe	Leu
	850					855					860				
Gln	Phe	Leu	Tyr	Gly	Ala	Met	Ala	Gln	Asp	Val	Ile	Trp	Gln	Asn	Ala
	865				870					875					880
Ser	Glu	Glu	Gln	Leu	Gln	Asp	Ala	Gln	Leu	Ala	Ile	Glu	Arg	Ser	Val
				885				890							895
Met	Asn	Arg	Ile	Phe	Lys	Leu	Ala	Phe	Tyr	Pro	Asn	Gln	Asp	Gly	Asp
			900					905					910		
Ile	Leu	Arg	Asp	Gln	Val	Leu	His	Glu	His	Ile	Gln	Arg	Leu	Ser	Lys
	915						920					925			
Val	Val	Thr	Ala	Asn	His	Arg	Ala	Leu	Gln	Ile	Pro	Glu	Val	Tyr	Leu
	930						935					940			
Arg	Glu	Ala	Pro	Trp	Pro	Ser	Ala	Gln	Ser	Glu	Ile	Arg	Thr	Ile	Ser
	945				950					955					960
Ala	Tyr	Lys	Thr	Pro	Arg	Asp	Lys	Val	Gln	Cys	Ile	Leu	Arg	Met	Cys
				965				970						975	
Ser	Thr	Ile	Met	Asn	Leu	Leu	Ser	Leu	Ala	Asn	Glu	Asp	Ser	Val	Pro
			980					985					990		
Gly	Ala	Asp	Asp	Phe	Val	Pro	Val	Leu	Val	Phe	Val	Leu	Ile	Lys	Ala
	995					1000					1005				
Asn	Pro	Pro	Cys	Leu	Leu	Ser	Thr	Val	Gln	Tyr	Ile	Ser	Ser	Phe	Tyr
	1010					1015					1020				
Ala	Ser	Cys	Leu	Ser	Gly	Glu	Glu	Ser	Tyr	Trp	Trp	Met	Gln	Phe	Thr
	1025				1030					1035					1040
Ala	Ala	Val	Glu	Phe	Ile	Lys	Thr	Ile	Asp	Asp	Arg	Lys	*		
			1045					1050			1053				

<210> 1761

<211> 1027

<212> PRT

<213> Homo sapiens

<400> 1761

Met	Ala	Leu	Asp	Asn	Leu	Leu	Ala	Asn	Leu	Pro	Pro	Ala	Lys	Pro	Gly
1				5					10					15	
Lys	Ser	Ser	Ser	Leu	Glu	Met	Thr	Pro	Tyr	Asn	Thr	Pro	Gln	Leu	Ser
			20					25					30		
Pro	Ala	Thr	Thr	Pro	Ala	Asn	Lys	Lys	Asn	Arg	Leu	Pro	Ile	Ala	Thr
		35					40					45			
Arg	Ser	Arg	Ser	Arg	Thr	Asn	Met	Leu	Met	Asp	Leu	His	Met	Asp	His
	50					55				60					
Glu	Gly	Ser	Ser	Gln	Glu	Thr	Ile	Gln	Glu	Val	Gln	Pro	Glu	Glu	Val
	65				70					75					80
Leu	Val	Ile	Ser	Leu	Gly	Thr	Gly	Pro	Gln	Leu	Thr	Pro	Gly	Met	Met
				85				90					95		
Ser	Glu	Asn	Glu	Val	Leu	Asn	Met	Gln	Leu	Ser	Asp	Gly	Gly	Gln	Gly
		100						105				110			
Asp	Val	Pro	Val	Asp	Glu	Asn	Lys	Leu	His	Gly	Lys	Pro	Asp	Lys	Thr
		115					120					125			

Leu	Arg	Phe	Ser	Leu	Cys	Ser	Asp	Asn	Leu	Glu	Gly	Ile	Ser	Glu	Gly	130	135	140
Pro	Ser	Asn	Arg	Ser	Asn	Ser	Val	Ser	Ser	Leu	Asp	Leu	Glu	Gly	Glu	145	150	155
Ser	Val	Ser	Glu	Leu	Gly	Ala	Gly	Pro	Ser	Gly	Ser	Asn	Gly	Val	Glu	165	170	175
Ala	Leu	Gln	Leu	Leu	Glu	His	Glu	Gln	Ala	Thr	Thr	Gln	Asp	Asn	Leu	180	185	190
Asp	Asp	Lys	Leu	Arg	Lys	Phe	Glu	Ile	Arg	Asp	Met	Met	Gly	Leu	Thr	195	200	205
Asp	Asp	Arg	Asp	Ile	Ser	Glu	Thr	Val	Ser	Glu	Thr	Trp	Ser	Thr	Asp	210	215	220
Val	Leu	Gly	Ser	Asp	Phe	Asp	Pro	Asn	Ile	Asp	Glu	Asp	Arg	Leu	Gln	225	230	235
Glu	Ile	Ala	Gly	Ala	Ala	Glu	Asn	Met	Leu	Gly	Ser	Leu	Leu	Cys		245	250	255
Leu	Pro	Gly	Ser	Gly	Ser	Val	Leu	Leu	Asp	Pro	Cys	Thr	Gly	Ser	Thr	260	265	270
Ile	Ser	Glu	Thr	Thr	Ser	Glu	Ala	Trp	Ser	Val	Glu	Val	Leu	Pro	Ser	275	280	285
Asp	Ser	Glu	Ala	Pro	Asp	Leu	Lys	Gln	Glu	Glu	Arg	Leu	Gln	Glu	Leu	290	295	300
Glu	Ser	Cys	Ser	Gly	Leu	Gly	Ser	Thr	Ser	Asp	Asp	Thr	Asp	Val	Arg	305	310	315
Glu	Val	Ser	Ser	Arg	Pro	Ser	Thr	Pro	Gly	Leu	Ser	Val	Val	Ser	Gly	325	330	335
Ile	Ser	Ala	Thr	Ser	Glu	Asp	Ile	Pro	Asn	Lys	Ile	Glu	Asp	Leu	Arg	340	345	350
Ser	Glu	Cys	Ser	Ser	Asp	Phe	Gly	Gly	Lys	Asp	Ser	Val	Thr	Ser	Pro	355	360	365
Asp	Met	Asp	Glu	Ile	Thr	His	Gly	Ala	His	Gln	Leu	Thr	Ser	Pro	Pro	370	375	380
Ser	Gln	Ser	Glu	Ser	Leu	Leu	Ala	Met	Phe	Asp	Pro	Leu	Ser	Ser	His	385	390	395
Glu	Gly	Ala	Ser	Ala	Val	Val	Arg	Pro	Lys	Val	His	Tyr	Ala	Arg	Pro	405	410	415
Ser	His	Pro	Pro	Pro	Asp	Pro	Pro	Ile	Leu	Glu	Gly	Ala	Val	Gly	Gly	420	425	430
Asn	Glu	Ala	Arg	Leu	Pro	Asn	Phe	Gly	Ser	His	Val	Leu	Thr	Pro	Ala	435	440	445
Glu	Met	Glu	Ala	Phe	Lys	Gln	Arg	His	Ser	Tyr	Pro	Glu	Arg	Leu	Val	450	455	460
Arg	Ser	Arg	Ser	Ser	Asp	Ile	Val	Ser	Ser	Val	Arg	Arg	Pro	Met	Ser	465	470	475
Asp	Pro	Ser	Trp	Asn	Arg	Arg	Pro	Gly	Asn	Glu	Glu	Arg	Glu	Leu	Pro	485	490	495
Pro	Ala	Ala	Ala	Ile	Gly	Ala	Thr	Ser	Leu	Val	Ala	Ala	Pro	His	Ser	500	505	510
Ser	Ser	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Ser	Arg	Gly	Glu	Thr	Glu	Glu	515	520	525
Arg	Lys	Asp	Ser	Asp	Asp	Glu	Lys	Ser	Asp	Arg	Asn	Arg	Pro	Trp	Trp	530	535	540
Arg	Lys	Arg	Phe	Val	Ser	Ala	Met	Pro	Lys	Ala	Pro	Ile	Pro	Phe	Arg	545	550	555
Lys	Lys	Glu	Lys	Gln	Glu	Lys	Asp	Lys	Asp	Asp	Leu	Gly	Pro	Asp	Arg	565	570	575
Phe	Ser	Thr	Leu	Thr	Asp	Asp	Pro	Ser	Pro	Arg	Leu	Ser	Ala	Gln	Ala	580	585	590
Gln	Val	Ala	Glu	Asp	Ile	Leu	Asp	Lys	Tyr	Arg	Asn	Ala	Ile	Lys	Arg	595	600	605
Thr	Ser	Pro	Ser	Asp	Gly	Ala	Met	Ala	Asn	Tyr	Glu	Ser	Thr	Glu	Val	610	615	620
Met	Gly	Asp	Gly	Glu	Ser	Ala	His	Asp	Ser	Pro	Arg	Asp	Glu	Ala	Leu	625	630	635
																		640

Gln Asn Ile Ser Ala Asp Asp Leu Pro Asp Ser Ala Ser Gln Ala Ala
 645 650 655
 His Pro Gln Asp Ser Ala Phe Ser Tyr Arg Asp Ala Lys Lys Lys Leu
 660 665 670
 Arg Leu Ala Leu Cys Ser Ala Asp Ser Val Ala Phe Pro Val Leu Thr
 675 680 685
 His Ser Thr Arg Asn Gly Leu Pro Asp His Thr Asp Pro Glu Asp Asn
 690 695 700
 Glu Ile Val Cys Phe Leu Lys Val Gln Ile Ala Glu Ala Ile Asn Leu
 705 710 715 720
 Gln Asp Lys Asn Leu Met Ala Gln Leu Gln Glu Thr Met Arg Cys Val
 725 730 735
 Cys Arg Phe Asp Asn Arg Thr Cys Arg Lys Leu Leu Ala Ser Ile Ala
 740 745 750
 Glu Asp Tyr Arg Lys Arg Ala Pro Tyr Ile Ala Tyr Leu Thr Arg Cys
 755 760 765
 Arg Gln Gly Leu Gln Thr Thr Gln Ala His Leu Glu Arg Leu Leu Gln
 770 775 780
 Arg Val Leu Arg Asp Lys Glu Val Ala Asn Arg Tyr Phe Thr Thr Val
 785 790 795 800
 Cys Val Arg Leu Leu Leu Glu Ser Lys Glu Lys Lys Ile Arg Glu Phe
 805 810 815
 Ile Gln Asp Phe Gln Lys Leu Thr Ala Ala Asp Asp Lys Thr Ala Gln
 820 825 830
 Val Glu Asp Phe Leu Gln Phe Leu Tyr Gly Ala Met Ala Gln Asp Val
 835 840 845
 Ile Trp Gln Asn Ala Ser Glu Glu Gln Leu Gln Asp Ala Gln Leu Ala
 850 855 860
 Ile Glu Arg Ser Val Met Asn Arg Ile Phe Lys Leu Ala Phe Tyr Pro
 865 870 875 880
 Asn Gln Asp Gly Asp Ile Leu Arg Asp Gln Val Leu His Glu His Ile
 885 890 895
 Gln Arg Leu Ser Lys Val Val Thr Ala Asn His Arg Ala Leu Gln Ile
 900 905 910
 Pro Glu Val Tyr Leu Arg Glu Ala Pro Trp Pro Ser Ala Gln Ser Glu
 915 920 925
 Ile Arg Thr Ile Ser Ala Tyr Lys Thr Pro Arg Asp Lys Val Gln Cys
 930 935 940
 Ile Leu Arg Met Cys Ser Thr Ile Met Asn Leu Leu Ser Leu Ala Asn
 945 950 955 960
 Glu Asp Ser Val Pro Gly Ala Asp Asp Phe Val Pro Val Leu Val Phe
 965 970 975
 Val Leu Ile Lys Ala Asn Pro Pro Cys Leu Leu Ser Thr Val Gln Tyr
 980 985 990
 Ile Ser Ser Phe Tyr Ala Ser Cys Leu Ser Gly Glu Glu Ser Tyr Trp
 995 1000 1005
 Trp Met Gln Phe Thr Ala Ala Val Glu Phe Ile Lys Thr Ile Asp Asp
 1010 1015 1020
 Arg Lys *
 10251026

<210> 1762

<211> 1027

<212> PRT

<213> Homo sapiens

<400> 1762

Met Ala Leu Asp Asn Leu Leu Ala Asn Leu Pro Pro Ala Lys Pro Gly
 1 5 10 15
 Lys Ser Ser Ser Leu Glu Met Thr Pro Tyr Asn Thr Pro Gln Leu Ser
 20 25 30

Pro	Ala	Thr	Thr	Pro	Ala	Asn	Lys	Lys	Asn	Arg	Leu	Pro	Ile	Ala	Thr
		35					40					45			
Arg	Ser	Arg	Ser	Arg	Thr	Asn	Met	Leu	Met	Asp	Leu	His	Met	Asp	His
	50					55					60				
Glu	Gly	Ser	Ser	Gln	Glu	Thr	Ile	Gln	Glu	Val	Gln	Pro	Glu	Glu	Val
	65				70					75				80	
Leu	Val	Ile	Ser	Leu	Gly	Thr	Gly	Pro	Gln	Leu	Thr	Pro	Gly	Met	Met
			85					90						95	
Ser	Glu	Asn	Glu	Val	Leu	Asn	Met	Gln	Leu	Ser	Asp	Gly	Gly	Gln	Gly
			100					105					110		
Asp	Val	Pro	Val	Asp	Glu	Asn	Lys	Leu	His	Gly	Lys	Pro	Asp	Lys	Thr
	115					120						125			
Leu	Arg	Phe	Ser	Leu	Cys	Ser	Asp	Asn	Leu	Glu	Gly	Ile	Ser	Glu	Gly
	130					135					140				
Pro	Ser	Asn	Arg	Ser	Asn	Ser	Val	Ser	Ser	Leu	Asp	Leu	Glu	Gly	Glu
	145				150					155				160	
Ser	Val	Ser	Glu	Leu	Gly	Ala	Gly	Pro	Ser	Gly	Ser	Asn	Gly	Val	Glu
				165				170						175	
Ala	Leu	Gln	Leu	Leu	Glu	His	Glu	Gln	Ala	Thr	Thr	Gln	Asp	Asn	Leu
		180						185					190		
Asp	Asp	Lys	Leu	Arg	Lys	Phe	Glu	Ile	Arg	Asp	Met	Met	Gly	Leu	Thr
	195					200					205				
Asp	Asp	Arg	Asp	Ile	Ser	Glu	Thr	Val	Ser	Glu	Thr	Trp	Ser	Thr	Asp
	210				215						220				
Val	Leu	Gly	Ser	Asp	Phe	Asp	Pro	Asn	Ile	Asp	Glu	Asp	Arg	Leu	Gln
	225				230					235				240	
Glu	Ile	Ala	Gly	Ala	Ala	Ala	Glu	Asn	Met	Leu	Gly	Ser	Leu	Leu	Cys
				245				250						255	
Leu	Pro	Gly	Ser	Gly	Ser	Val	Leu	Leu	Asp	Pro	Cys	Thr	Gly	Ser	Thr
		260						265					270		
Ile	Ser	Glu	Thr	Thr	Ser	Glu	Ala	Trp	Ser	Val	Glu	Val	Leu	Pro	Ser
	275						280					285			
Asp	Ser	Glu	Ala	Pro	Asp	Leu	Lys	Gln	Glu	Glu	Arg	Leu	Gln	Glu	Leu
	290				295						300				
Glu	Ser	Cys	Ser	Gly	Leu	Gly	Ser	Thr	Ser	Asp	Asp	Thr	Asp	Val	Arg
	305				310					315				320	
Glu	Val	Ser	Ser	Arg	Pro	Ser	Thr	Pro	Gly	Leu	Ser	Val	Val	Ser	Gly
				325				330						335	
Ile	Ser	Ala	Thr	Ser	Glu	Asp	Ile	Pro	Asn	Lys	Ile	Glu	Asp	Leu	Arg
		340						345					350		
Ser	Glu	Cys	Ser	Ser	Asp	Phe	Gly	Gly	Lys	Asp	Ser	Val	Thr	Ser	Pro
	355					360					365				
Asp	Met	Asp	Glu	Ile	Thr	His	Asp	Phe	Leu	Tyr	Ile	Leu	Gln	Pro	Lys
	370				375					380					
Gln	His	Phe	Gln	His	Ile	Glu	Ala	Glu	Ala	Asp	Met	Arg	Ile	Gln	Leu
	385				390					395				400	
Ser	Ser	Ser	Ala	His	Gln	Leu	Thr	Ser	Pro	Pro	Ser	Gln	Ser	Glu	Ser
				405				410						415	
Leu	Leu	Ala	Met	Phe	Asp	Pro	Leu	Ser	Ser	His	Glu	Gly	Ala	Ser	Ala
		420						425					430		
Val	Val	Arg	Pro	Lys	Val	His	Tyr	Ala	Arg	Pro	Ser	His	Pro	Pro	Pro
	435						440					445			
Asp	Pro	Pro	Ile	Leu	Glu	Gly	Ala	Val	Gly	Gly	Asn	Glu	Ala	Arg	Leu
	450					455					460				
Pro	Asn	Phe	Gly	Ser	His	Val	Leu	Thr	Pro	Ala	Glu	Met	Glu	Ala	Phe
	465				470					475				480	
Lys	Gln	Arg	His	Ser	Tyr	Pro	Glu	Arg	Leu	Val	Arg	Ser	Arg	Ser	Ser
			485					490						495	
Asp	Ile	Val	Ser	Ser	Val	Arg	Arg	Pro	Met	Ser	Asp	Pro	Ser	Trp	Asn
			500					505					510		
Arg	Arg	Pro	Gly	Asn	Glu	Glu	Arg	Glu	Leu	Pro	Pro	Ala	Ala	Ala	Ile
		515					520					525			
Gly	Ala	Thr	Ser	Leu	Val	Ala	Ala	Pro	His	Ser	Ser	Ser	Ser	Ser	Pro
	530					535					540				

Ser	Lys	Asp	Ser	Ser	Arg	Gly	Glu	Thr	Glu	Glu	Arg	Lys	Asp	Ser	Asp	545	550	555	560
Asp	Glu	Lys	Ser	Asp	Arg	Asn	Arg	Pro	Trp	Trp	Arg	Lys	Arg	Phe	Val	565	570		575
Ser	Ala	Met	Pro	Lys	Asp	Asp	Pro	Ser	Pro	Arg	Leu	Ser	Ala	Gln	Ala	580	585		590
Gln	Val	Ala	Glu	Asp	Ile	Leu	Asp	Lys	Tyr	Arg	Asn	Ala	Ile	Lys	Arg	595	600		605
Thr	Ser	Pro	Ser	Asp	Gly	Ala	Met	Ala	Asn	Tyr	Glu	Ser	Thr	Glu	Val	610	615		620
Met	Gly	Asp	Gly	Glu	Ser	Ala	His	Asp	Ser	Pro	Arg	Asp	Glu	Ala	Leu	625	630		635
Gln	Asn	Ile	Ser	Ala	Asp	Asp	Leu	Pro	Asp	Ser	Ala	Ser	Gln	Ala	Ala	645	650		655
His	Pro	Gln	Asp	Ser	Ala	Phe	Ser	Tyr	Arg	Asp	Ala	Lys	Lys	Lys	Leu	660	665		670
Arg	Leu	Ala	Leu	Cys	Ser	Ala	Asp	Ser	Val	Ala	Phe	Pro	Val	Leu	Thr	675	680		685
His	Ser	Thr	Arg	Asn	Gly	Leu	Pro	Asp	His	Thr	Asp	Pro	Glu	Asp	Asn	690	695		700
Glu	Ile	Val	Cys	Phe	Leu	Lys	Val	Gln	Ile	Ala	Glu	Ala	Ile	Asn	Leu	705	710		715
Gln	Asp	Lys	Asn	Leu	Met	Ala	Gln	Leu	Gln	Glu	Thr	Met	Arg	Cys	Val	725	730		735
Cys	Arg	Phe	Asp	Asn	Arg	Thr	Cys	Arg	Lys	Leu	Leu	Ala	Ser	Ile	Ala	740	745		750
Glu	Asp	Tyr	Arg	Lys	Arg	Ala	Pro	Tyr	Ile	Ala	Tyr	Leu	Thr	Arg	Cys	755	760		765
Arg	Gln	Gly	Leu	Gln	Thr	Thr	Gln	Ala	His	Leu	Glu	Arg	Leu	Leu	Gln	770	775		780
Arg	Val	Leu	Arg	Asp	Lys	Glu	Val	Ala	Asn	Arg	Tyr	Phe	Thr	Thr	Val	785	790		795
Cys	Val	Arg	Leu	Leu	Leu	Glu	Ser	Lys	Glu	Lys	Lys	Ile	Arg	Glu	Phe	805	810		815
Ile	Gln	Asp	Phe	Gln	Lys	Leu	Thr	Ala	Ala	Asp	Asp	Lys	Thr	Ala	Gln	820	825		830
Val	Glu	Asp	Phe	Leu	Gln	Phe	Leu	Tyr	Gly	Ala	Met	Ala	Gln	Asp	Val	835	840		845
Ile	Trp	Gln	Asn	Ala	Ser	Glu	Glu	Gln	Leu	Gln	Asp	Ala	Gln	Leu	Ala	850	855		860
Ile	Glu	Arg	Ser	Val	Met	Asn	Arg	Ile	Phe	Lys	Leu	Ala	Phe	Tyr	Pro	865	870		875
Asn	Gln	Asp	Gly	Asp	Ile	Leu	Arg	Asp	Gln	Val	Leu	His	Glu	His	Ile	885	890		895
Gln	Arg	Leu	Ser	Lys	Val	Val	Thr	Ala	Asn	His	Arg	Ala	Leu	Gln	Ile	900	905		910
Pro	Glu	Val	Tyr	Leu	Arg	Glu	Ala	Pro	Trp	Pro	Ser	Ala	Gln	Ser	Glu	915	920		925
Ile	Arg	Thr	Ile	Ser	Ala	Tyr	Lys	Thr	Pro	Arg	Asp	Lys	Val	Gln	Cys	930	935		940
Ile	Leu	Arg	Met	Cys	Ser	Thr	Ile	Met	Asn	Leu	Leu	Ser	Leu	Ala	Asn	945	950		955
Glu	Asp	Ser	Val	Pro	Gly	Ala	Asp	Asp	Phe	Val	Pro	Val	Leu	Val	Phe	965	970		975
Val	Leu	Ile	Lys	Ala	Asn	Pro	Pro	Cys	Leu	Leu	Ser	Thr	Val	Gln	Tyr	980	985		990
Ile	Ser	Ser	Phe	Tyr	Ala	Ser	Cys	Leu	Ser	Gly	Glu	Glu	Ser	Tyr	Trp	995	1000		1005
Trp	Met	Gln	Phe	Thr	Ala	Ala	Val	Glu	Phe	Ile	Lys	Thr	Ile	Asp	Asp	1010	1015		1020
Arg	Lys	*																	

10251026

<210> 1763
 <211> 686
 <212> PRT
 <213> Homo sapiens

<400> 1763
 Met Glu Thr Leu Glu Ser Glu Leu Thr Cys Pro Ile Cys Leu Glu Leu
 1 5 10 15
 Phe Glu Asp Pro Leu Leu Leu Pro Cys Ala His Ser Leu Cys Phe Ser
 20 25 30
 Cys Ala His Arg Ile Leu Val Ser Ser Cys Ser Ser Gly Glu Ser Ile
 35 40 45
 Glu Pro Ile Thr Ala Phe Gln Cys Pro Thr Cys Arg Tyr Val Ile Ser
 50 55 60
 Leu Asn His Arg Gly Leu Asp Gly Leu Lys Arg Asn Val Thr Leu Gln
 65 70 75 80
 Asn Ile Ile Asp Arg Phe Gln Lys Ala Ser Val Ser Gly Pro Asn Ser
 85 90 95
 Pro Ser Glu Ser Arg Arg Glu Arg Thr Tyr Arg Pro Thr Thr Ala Met
 100 105 110
 Ser Ser Glu Arg Ile Ala Cys Gln Phe Cys Glu Gln Asp Pro Pro Arg
 115 120 125
 Asp Ala Val Lys Thr Cys Ile Thr Cys Glu Val Ser Tyr Cys Asp Arg
 130 135 140
 Cys Leu Arg Ala Thr His Pro Asn Lys Lys Pro Phe Thr Ser His Arg
 145 150 155 160
 Leu Val Glu Pro Val Pro Asp Thr His Leu Arg Gly Ile Thr Cys Leu
 165 170 175
 Asp His Glu Asn Glu Lys Val Asn Met Tyr Cys Val Ser Asp Asp Gln
 180 185 190
 Leu Ile Cys Ala Leu Cys Lys Leu Val Gly Arg His Arg Asp His Gln
 195 200 205
 Val Ala Ser Leu Asn Asp Arg Phe Glu Lys Leu Lys Gln Thr Leu Glu
 210 215 220
 Met Asn Leu Thr Asn Leu Val Lys Arg Asn Ser Glu Leu Glu Asn Gln
 225 230 235 240
 Met Ala Lys Leu Ile Gln Ile Cys Gln Gln Val Glu Val Asn Thr Ala
 245 250 255
 Met His Glu Ala Lys Leu Met Glu Glu Cys Asp Glu Leu Val Glu Ile
 260 265 270
 Ile Gln Gln Arg Lys Gln Met Ile Ala Val Lys Ile Lys Glu Thr Lys
 275 280 285
 Val Met Lys Leu Arg Lys Leu Ala Gln Gln Val Ala Asn Cys Arg Gln
 290 295 300
 Cys Leu Glu Arg Ser Thr Val Leu Ile Asn Gln Ala Glu His Ile Leu
 305 310 315 320
 Lys Glu Asn Asp Gln Ala Arg Phe Leu Gln Ser Ala Lys Asn Ile Ala
 325 330 335
 Glu Arg Val Ala Met Ala Thr Ala Ser Ser Gln Val Leu Ile Pro Asp
 340 345 350
 Ile Asn Phe Asn Asp Ala Phe Glu Asn Phe Ala Leu Asp Phe Ser Arg
 355 360 365
 Glu Lys Lys Leu Leu Glu Gly Leu Asp Tyr Leu Thr Ala Pro Asn Pro
 370 375 380
 Pro Ser Ile Arg Glu Glu Leu Cys Thr Ala Ser His Asp Thr Ile Thr
 385 390 395 400
 Val His Trp Ile Ser Asp Asp Glu Phe Ser Ile Ser Ser Tyr Glu Leu
 405 410 415
 Gln Tyr Thr Ile Phe Thr Gly Gln Ala Asn Phe Ile Ser Leu Tyr Asn
 420 425 430
 Ser Val Asp Ser Trp Met Ile Val Pro Asn Ile Lys Gln Asn His Tyr
 435 440 445

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Thr Val His Gly Leu Gln Ser Gly Thr Arg Tyr Ile Phe Ile Val Lys
  450                      455                      460
Ala Ile Asn Gln Ala Gly Ser Arg Asn Ser Glu Pro Thr Arg Leu Lys
465                      470                      475                      480
Thr Asn Ser Gln Pro Phe Lys Leu Asp Pro Lys Met Thr His Lys Lys
                      485                      490                      495
Leu Lys Ile Ser Asn Asp Gly Leu Gln Met Glu Lys Asp Glu Ser Ser
                      500                      505                      510
Leu Lys Lys Ser His Thr Pro Glu Arg Phe Ser Gly Thr Gly Cys Tyr
                      515                      520                      525
Gly Ala Ala Gly Asn Ile Phe Ile Asp Ser Gly Cys His Tyr Trp Glu
                      530                      535                      540
Val Val Met Gly Ser Ser Thr Trp Tyr Ala Ile Gly Ile Ala Tyr Lys
545                      550                      555                      560
Ser Ala Pro Lys Asn Glu Trp Ile Gly Lys Asn Ala Ser Ser Trp Val
                      565                      570                      575
Phe Ser Arg Cys Asn Ser Asn Phe Val Val Arg His Asn Asn Lys Glu
                      580                      585                      590
Met Leu Val Asp Val Pro Pro His Leu Lys Arg Leu Gly Val Leu Leu
                      595                      600                      605
Asp Tyr Asp Asn Asn Met Leu Ser Phe Tyr Asp Pro Ala Asn Ser Leu
                      610                      615                      620
His Leu His Thr Phe Asp Val Thr Phe Ile Leu Pro Val Cys Pro Thr
625                      630                      635                      640
Phe Thr Ile Trp Asn Lys Ser Leu Met Ile Leu Ser Gly Leu Pro Ala
                      645                      650                      655
Pro Asp Phe Ile Asp Tyr Pro Glu Arg Gln Glu Cys Asn Cys Arg Pro
                      660                      665                      670
Gln Glu Ser Pro Tyr Val Ser Gly Met Lys Thr Cys His *
                      675                      680                      685

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<210> 1764
 <211> 839
 <212> PRT
 <213> Homo sapiens

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<400> 1764
Met Thr Gly Ala Glu Ile Glu Pro Ser Ala Gln Ala Lys Pro Glu Lys
  1                      5                      10                      15
Lys Ala Gly Glu Val Ile Ala Gly Pro Glu Arg Glu Asn Asp Val
                      20                      25                      30
Pro Leu Val Val Arg Pro Lys Val Arg Thr Gln Ala Thr Thr Gly Ala
                      35                      40                      45
Arg Pro Lys Thr Glu Thr Lys Ser Val Pro Ala Ala Arg Pro Lys Thr
                      50                      55                      60
Glu Ala Gln Ala Met Ser Gly Ala Arg Pro Lys Thr Glu Val Gln Val
65                      70                      75                      80
Met Gly Gly Ala Arg Pro Lys Thr Glu Ala Gln Gly Ile Thr Gly Ala
                      85                      90                      95
Arg Pro Lys Thr Asp Ala Arg Ala Val Gly Gly Ala Arg Ser Lys Thr
                      100                      105                      110
Asp Ala Lys Ala Ile Pro Gly Ala Arg Pro Lys Asp Glu Ala Gln Ala
                      115                      120                      125
Trp Ala Gln Ser Glu Phe Gly Thr Glu Ala Val Ser Gln Ala Glu Gly
130                      135                      140
Val Ser Gln Thr Asn Ala Val Ala Trp Pro Leu Ala Thr Ala Glu Ser
145                      150                      155                      160
Gly Ser Val Thr Lys Ser Lys Gly Leu Ser Met Asp Arg Glu Leu Val
                      165                      170                      175
Asn Val Asp Ala Glu Thr Phe Pro Gly Thr Gln Gly Gln Lys Gly Ile
                      180                      185                      190

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Gln	Pro	Trp	Phe	Gly	Pro	Gly	Glu	Glu	Thr	Asn	Met	Gly	Ser	Trp	Cys	195	200	205
Tyr	Ser	Arg	Pro	Arg	Ala	Arg	Glu	Glu	Ala	Ser	Asn	Glu	Ser	Gly	Phe	210	215	220
Trp	Ser	Ala	Asp	Glu	Thr	Ser	Thr	Ala	Ser	Ser	Phe	Trp	Thr	Gly	Glu	225	230	235
Glu	Thr	Ser	Val	Arg	Ser	Trp	Pro	Arg	Glu	Ser	Asn	Thr	Arg	Ser		245	250	255
Arg	His	Arg	Ala	Lys	His	Gln	Thr	Asn	Pro	Arg	Ser	Arg	Pro	Arg	Ser	260	265	270
Lys	Gln	Glu	Ala	Tyr	Val	Asp	Ser	Trp	Ser	Gly	Ser	Glu	Asp	Glu	Ala	275	280	285
Ser	Asn	Pro	Phe	Ser	Phe	Trp	Val	Gly	Glu	Asn	Thr	Asn	Asn	Leu	Phe	290	295	300
Arg	Pro	Arg	Val	Arg	Glu	Ala	Asn	Ile	Arg	Ser	Lys	Leu	Arg	Thr		305	310	315
Asn	Arg	Glu	Asp	Cys	Phe	Glu	Ser	Glu	Ser	Glu	Asp	Glu	Phe	Tyr	Lys	325	330	335
Gln	Ser	Trp	Val	Leu	Pro	Gly	Glu	Glu	Ala	Asn	Ser	Arg	Phe	Arg	His	340	345	350
Arg	Asp	Lys	Glu	Asp	Pro	Asn	Thr	Ala	Leu	Lys	Leu	Arg	Ala	Gln	Lys	355	360	365
Asp	Val	Asp	Ser	Asp	Arg	Val	Lys	Gln	Glu	Pro	Arg	Phe	Glu	Glu	Glu	370	375	380
Val	Ile	Ile	Gly	Ser	Trp	Phe	Trp	Ala	Glu	Lys	Glu	Ala	Ser	Leu	Glu	385	390	395
Gly	Gly	Ala	Ser	Ala	Ile	Cys	Glu	Ser	Glu	Pro	Gly	Thr	Glu	Glu	Gly	405	410	415
Ala	Ile	Gly	Gly	Ser	Ala	Tyr	Trp	Ala	Glu	Glu	Lys	Ser	Ser	Leu	Gly	420	425	430
Ala	Val	Ala	Arg	Glu	Glu	Ala	Lys	Pro	Glu	Ser	Glu	Glu	Glu	Ala	Ile	435	440	445
Phe	Gly	Ser	Trp	Phe	Trp	Asp	Arg	Asp	Glu	Ala	Cys	Phe	Asp	Leu	Asn	450	455	460
Pro	Cys	Pro	Val	Tyr	Lys	Val	Ser	Asp	Arg	Phe	Arg	Asp	Ala	Ala	Glu	465	470	475
Glu	Leu	Asn	Ala	Ser	Ser	Arg	Pro	Gln	Thr	Trp	Asp	Glu	Val	Thr	Val	485	490	495
Glu	Phe	Lys	Pro	Gly	Leu	Phe	His	Gly	Val	Gly	Phe	Arg	Ser	Thr	Ser	500	505	510
Pro	Phe	Gly	Ile	Pro	Glu	Glu	Ala	Ser	Glu	Met	Leu	Glu	Ala	Lys	Pro	515	520	525
Lys	Asn	Leu	Glu	Leu	Ser	Pro	Glu	Gly	Glu	Glu	Gln	Glu	Ser	Leu	Leu	530	535	540
Gln	Pro	Asp	Gln	Pro	Ser	Pro	Glu	Phe	Thr	Phe	Gln	Tyr	Asp	Pro	Ser	545	550	555
Tyr	Arg	Ser	Val	Arg	Glu	Ile	Arg	Glu	His	Leu	Arg	Ala	Arg	Glu	Ser	565	570	575
Ala	Glu	Ser	Glu	Ser	Trp	Ser	Cys	Ser	Cys	Ile	Gln	Cys	Glu	Leu	Lys	580	585	590
Ile	Gly	Ser	Glu	Glu	Phe	Glu	Glu	Phe	Leu	Leu	Leu	Met	Asp	Lys	Ile	595	600	605
Arg	Asp	Pro	Phe	Ile	His	Glu	Ile	Ser	Lys	Ile	Ala	Met	Gly	Met	Arg	610	615	620
Ser	Ala	Ser	Gln	Phe	Thr	Arg	Asp	Phe	Ile	Arg	Asp	Ser	Gly	Val	Val	625	630	635
Ser	Leu	Ile	Glu	Thr	Leu	Leu	Asn	Tyr	Pro	Ser	Ser	Arg	Val	Arg	Thr	645	650	655
Ser	Phe	Leu	Glu	Asn	Met	Ile	His	Met	Ala	Pro	Pro	Tyr	Pro	Asn	Leu	660	665	670
Asn	Met	Ile	Glu	Thr	Phe	Ile	Cys	Gln	Val	Cys	Glu	Glu	Thr	Leu	Ala	675	680	685
His	Ser	Val	Asp	Ser	Leu	Glu	Gln	Leu	Thr	Gly	Ile	Arg	Met	Leu	Arg	690	695	700


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His Leu Thr Met Thr Ile Asp Tyr His Thr Leu Ile Ala Asn Tyr Met
705                      710                      715                      720
Ser Gly Phe Leu Ser Leu Leu Thr Thr Ala Asn Ala Arg Thr Lys Phe
                      725                      730                      735
His Val Leu Lys Met Leu Leu Asn Leu Ser Glu Asn Pro Ala Val Ala
                      740                      745                      750
Lys Lys Leu Phe Ser Ala Lys Ala Leu Ser Ile Phe Val Gly Leu Phe
                      755                      760                      765
Asn Ile Glu Glu Thr Asn Asp Asn Ile Gln Ile Val Ile Lys Met Phe
                      770                      775                      780
Gln Asn Ile Ser Asn Ile Ile Lys Ser Gly Lys Met Ser Leu Ile Asp
785                      790                      795                      800
Asp Asp Phe Ser Leu Glu Pro Leu Ile Ser Ala Phe Arg Glu Phe Glu
                      805                      810                      815
Glu Leu Ala Lys Gln Leu Gln Ala Gln Ile Asp Asn Gln Asn Asp Pro
                      820                      825                      830
Glu Val Gly Gln Gln Ser *
                      835                      838

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<210> 1765
 <211> 1022
 <212> PRT
 <213> Homo sapiens

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<400> 1765
Met Asp Leu Leu Ser Gly Thr Tyr Ile Phe Ala Val Leu Leu Ala Cys
1                      5                      10                      15
Val Val Phe His Ser Gly Ala Gln Glu Lys Asn Tyr Thr Ile Arg Glu
                      20                      25                      30
Glu Met Pro Glu Asn Val Leu Ile Gly Asp Leu Leu Lys Asp Leu Asn
                      35                      40                      45
Leu Ser Leu Ile Pro Asn Lys Ser Leu Thr Thr Ala Met Gln Phe Lys
                      50                      55                      60
Leu Val Tyr Lys Thr Gly Asp Val Pro Leu Ile Arg Ile Glu Glu Asp
65                      70                      75                      80
Thr Gly Glu Ile Phe Thr Thr Gly Ala Arg Ile Asp Arg Glu Lys Leu
                      85                      90                      95
Cys Ala Gly Ile Pro Arg Asp Glu His Cys Phe Tyr Glu Val Glu Val
                      100                     105                     110
Ala Ile Leu Pro Asp Glu Ile Phe Arg Leu Val Lys Ile Arg Phe Leu
                      115                     120                     125
Ile Glu Asp Ile Asn Asp Asn Ala Pro Leu Phe Pro Ala Thr Val Ile
130                     135                     140
Asn Ile Ser Ile Pro Glu Asn Ser Ala Ile Asn Ser Lys Tyr Thr Leu
145                     150                     155                     160
Pro Ala Ala Val Asp Pro Asp Val Gly Ile Asn Gly Val Gln Asn Tyr
                      165                     170                     175
Glu Leu Ile Lys Ser Gln Asn Ile Phe Gly Leu Asp Val Ile Glu Thr
                      180                     185                     190
Pro Glu Gly Asp Lys Met Pro Gln Leu Ile Val Gln Lys Glu Leu Asp
195                     200                     205
Arg Glu Glu Lys Asp Thr Tyr Val Met Lys Val Lys Val Glu Asp Gly
210                     215                     220
Gly Phe Pro Gln Arg Ser Ser Thr Ala Ile Leu Gln Val Ser Val Thr
225                     230                     235                     240
Asp Thr Asn Asp Asn His Pro Val Phe Lys Glu Thr Glu Ile Glu Val
                      245                     250                     255
Ser Ile Pro Glu Asn Ala Pro Val Gly Thr Ser Val Thr Gln Leu His
260                     265                     270
Ala Thr Asp Ala Asp Ile Gly Glu Asn Ala Lys Ile His Phe Ser Phe
275                     280                     285

```

Ser	Asn	Leu	Val	Ser	Asn	Ile	Ala	Arg	Arg	Leu	Phe	His	Leu	Asn	Ala
290					295					300					
Thr	Thr	Gly	Leu	Ile	Thr	Ile	Lys	Glu	Pro	Leu	Asp	Arg	Glu	Glu	Thr
305				310						315				320	
Pro	Asn	His	Lys	Leu	Leu	Val	Leu	Ala	Ser	Asp	Gly	Gly	Leu	Met	Pro
			325						330					335	
Ala	Arg	Ala	Met	Val	Leu	Val	Asn	Val	Thr	Asp	Val	Asn	Asp	Asn	Val
			340					345					350		
Pro	Ser	Ile	Asp	Ile	Arg	Tyr	Ile	Val	Asn	Pro	Val	Asn	Asp	Thr	Val
		355				360						365			
Val	Leu	Ser	Glu	Asn	Ile	Pro	Leu	Asn	Thr	Lys	Ile	Ala	Leu	Ile	Thr
	370				375						380				
Val	Thr	Asp	Lys	Asp	Ala	Asp	His	Asn	Gly	Arg	Val	Thr	Cys	Phe	Thr
385				390						395				400	
Asp	His	Glu	Ile	Pro	Phe	Arg	Leu	Arg	Pro	Val	Phe	Ser	Asn	Gln	Phe
			405						410					415	
Leu	Leu	Glu	Thr	Ala	Ala	Tyr	Leu	Asp	Tyr	Glu	Ser	Thr	Lys	Glu	Tyr
			420					425					430		
Ala	Ile	Lys	Leu	Leu	Ala	Ala	Asp	Ala	Gly	Lys	Pro	Pro	Leu	Asn	Gln
		435					440					445			
Ser	Ala	Met	Leu	Phe	Ile	Lys	Val	Lys	Asp	Glu	Asn	Asp	Asn	Ala	Pro
450					455						460				
Val	Phe	Thr	Gln	Ser	Phe	Val	Thr	Val	Ser	Ile	Pro	Glu	Asn	Asn	Ser
465				470						475				480	
Pro	Gly	Ile	Gln	Leu	Thr	Lys	Val	Ser	Ala	Met	Asp	Ala	Asp	Ser	Gly
			485					490						495	
Pro	Asn	Ala	Lys	Ile	Asn	Tyr	Leu	Leu	Gly	Pro	Asp	Ala	Pro	Pro	Glu
		500						505					510		
Phe	Ser	Leu	Asp	Cys	Arg	Thr	Gly	Met	Leu	Thr	Val	Val	Lys	Lys	Leu
		515					520					525			
Asp	Arg	Glu	Lys	Glu	Asp	Lys	Tyr	Leu	Phe	Thr	Ile	Leu	Ala	Lys	Asp
530					535						540				
Asn	Gly	Val	Pro	Pro	Leu	Thr	Ser	Asn	Val	Thr	Val	Phe	Val	Ser	Ile
545					550					555				560	
Ile	Asp	Gln	Asn	Asp	Asn	Ser	Pro	Val	Phe	Thr	His	Asn	Glu	Tyr	Asn
			565					570						575	
Phe	Tyr	Val	Pro	Glu	Asn	Leu	Pro	Arg	His	Gly	Thr	Val	Gly	Leu	Ile
		580						585					590		
Thr	Val	Thr	Asp	Pro	Asp	Tyr	Gly	Asp	Asn	Ser	Ala	Val	Thr	Leu	Ser
		595					600					605			
Ile	Leu	Asp	Glu	Asn	Asp	Asp	Phe	Thr	Ile	Asp	Ser	Gln	Thr	Gly	Val
610					615						620				
Ile	Arg	Pro	Asn	Ile	Ser	Phe	Asp	Arg	Glu	Lys	Gln	Glu	Ser	Tyr	Thr
625				630						635				640	
Phe	Tyr	Val	Lys	Ala	Glu	Asp	Gly	Gly	Arg	Val	Ser	Arg	Ser	Ser	Ser
			645					650						655	
Ala	Lys	Val	Thr	Ile	Asn	Val	Val	Asp	Val	Asn	Asp	Asn	Lys	Pro	Val
		660						665					670		
Phe	Ile	Val	Pro	Pro	Ser	Asn	Cys	Ser	Tyr	Glu	Leu	Val	Leu	Pro	Ser
		675				680						685			
Thr	Asn	Pro	Gly	Thr	Val	Val	Phe	Gln	Val	Ile	Ala	Val	Asp	Asn	Asp
690					695						700				
Thr	Gly	Met	Asn	Ala	Glu	Val	Arg	Tyr	Ser	Ile	Val	Gly	Gly	Asn	Thr
705				710						715				720	
Arg	Asp	Leu	Phe	Ala	Ile	Asp	Gln	Glu	Thr	Gly	Asn	Ile	Thr	Leu	Met
			725						730					735	
Glu	Lys	Cys	Asp	Val	Thr	Asp	Leu	Gly	Leu	His	Arg	Val	Leu	Val	Lys
		740						745					750		
Ala	Asn	Asp	Leu	Gly	Gln	Pro	Asp	Ser	Leu	Phe	Ser	Val	Val	Ile	Val
		755				760						765			
Asn	Leu	Phe	Val	Asn	Glu	Ser	Val	Thr	Asn	Ala	Thr	Leu	Ile	Asn	Glu
	770				775						780				
Leu	Val	Arg	Lys	Ser	Thr	Glu	Ala	Pro	Val	Thr	Pro	Asn	Thr	Glu	Ile
785					790					795				800	

Ala Asp Val Ser Ser Pro Thr Ser Asp Tyr Val Lys Ile Leu Val Ala
805 810 815
Ala Val Ala Gly Thr Ile Thr Val Val Val Val Ile Phe Ile Thr Ala
820 825 830
Val Val Arg Cys Arg Gln Ala Pro His Leu Lys Ala Ala Gln Lys Asn
835 840 845
Lys Gln Asn Ser Glu Trp Ala Thr Pro Asn Pro Glu Asn Arg Gln Met
850 855 860
Ile Met Met Lys Lys Lys Lys Lys Lys Lys His Ser Pro Lys Asn
865 870 875 880
Leu Leu Leu Asn Phe Val Thr Ile Glu Glu Thr Lys Ala Asp Asp Val
885 890 895
Asp Ser Asp Gly Asn Arg Val Thr Leu Asp Leu Pro Ile Asp Leu Glu
900 905 910
Glu Gln Thr Met Gly Lys Tyr Asn Trp Val Thr Thr Pro Thr Thr Phe
915 920 925
Lys Pro Asp Ser Pro Asp Leu Ala Arg His Tyr Lys Ser Ala Ser Pro
930 935 940
Gln Pro Ala Phe Gln Ile Gln Pro Glu Thr Pro Leu Asn Ser Lys His
945 950 955 960
His Ile Ile Gln Glu Leu Pro Leu Asp Asn Thr Phe Val Ala Cys Asp
965 970 975
Ser Ile Ser Lys Cys Ser Ser Ser Ser Ser Asp Pro Tyr Ser Val Ser
980 985 990
Asp Cys Gly Tyr Pro Val Thr Thr Phe Glu Val Pro Val Ser Val His
995 1000 1005
Thr Arg Pro Val Gly Ile Gln Val Ser Asn Thr Thr Phe *
1010 1015 1020 1021

<210> 1766

<211> 269

<212> PRT

<213> Homo sapiens

<400> 1766

Met Asp Phe Val Phe Ser Leu Val Asn Ser Phe Leu Gly Glu Phe Leu
1 5 10 15
Arg Arg Ile Ile Gly Met Gln Leu Ile Thr Ser Leu Gly Leu Gln Glu
20 25 30
Phe Asp Ile Ala Arg Asn Val Leu Glu Leu Ile Tyr Ala Gln Thr Leu
35 40 45
Val Trp Ile Gly Ile Phe Phe Cys Pro Leu Leu Pro Phe Ile Gln Met
50 55 60
Ile Met Leu Phe Ile Met Phe Tyr Ser Lys Asn Ile Ser Leu Met Met
65 70 75 80
Asn Phe Gln Pro Pro Ser Lys Ala Trp Arg Ala Ser Gln Met Met Thr
85 90 95
Phe Phe Ile Phe Leu Leu Phe Phe Pro Ser Phe Thr Gly Val Leu Cys
100 105 110
Thr Leu Ala Ile Thr Ile Trp Arg Leu Lys Pro Ser Ala Asp Cys Gly
115 120 125
Pro Phe Arg Gly Leu Pro Leu Phe Ile His Ser Ile Tyr Ser Trp Ile
130 135 140
Asp Thr Leu Ser Thr Arg Pro Gly Tyr Leu Trp Val Val Trp Ile Tyr
145 150 155 160
Arg Asn Leu Ile Gly Ser Val His Phe Phe Phe Ile Leu Thr Leu Ile
165 170 175
Val Leu Ile Ile Thr Tyr Leu Tyr Trp Gln Ile Thr Glu Gly Arg Lys
180 185 190
Ile Met Ile Arg Leu Leu His Glu Gln Ile Ile Asn Glu Gly Lys Asp
195 200 205

Lys Met Phe Leu Ile Glu Lys Leu Ile Lys Leu Gln Asp Met Glu Lys
 210 215 220
 Lys Ala Asn Pro Ser Ser Leu Val Leu Glu Arg Arg Glu Val Glu Gln
 225 230 235 240
 Gln Gly Phe Leu His Leu Gly Glu His Asp Gly Ser Leu Asp Leu Arg
 245 250 255
 Ser Arg Arg Ser Val Gln Glu Gly Asn Pro Arg Ala *
 260 265 268

<210> 1767
 <211> 1025
 <212> PRT
 <213> Homo sapiens

<400> 1767
 Met Glu Arg Arg Ser Arg Arg Lys Ser Arg Arg Asn Gly Arg Ser Thr
 1 5 10 15
 Ala Gly Lys Ala Ala Ala Thr Gln Pro Ala Lys Ser Pro Gly Ala Gln
 20 25 30
 Leu Trp Leu Phe Pro Ser Ala Ala Gly Leu His Arg Ala Leu Leu Arg
 35 40 45
 Arg Val Glu Val Thr Arg Gln Leu Cys Cys Ser Pro Gly Arg Leu Ala
 50 55 60
 Val Leu Glu Arg Gly Gly Ala Gly Val Gln Val His Gln Leu Leu Ala
 65 70 75 80
 Gly Ser Gly Gly Ala Arg Thr Pro Lys Cys Ile Lys Leu Gly Lys Asn
 85 90 95
 Met Lys Ile His Ser Val Asp Gln Gly Ala Glu His Met Leu Ile Leu
 100 105 110
 Ser Ser Asp Gly Lys Pro Phe Glu Tyr Asp Asn Tyr Ser Met Lys His
 115 120 125
 Leu Arg Phe Glu Ser Ile Leu Gln Glu Lys Lys Ile Ile Gln Ile Thr
 130 135 140
 Cys Gly Asp Tyr His Ser Leu Ala Leu Ser Lys Gly Gly Glu Leu Phe
 145 150 155 160
 Ala Trp Gly Gln Asn Leu His Gly Gln Leu Gly Val Gly Arg Lys Phe
 165 170 175
 Pro Ser Thr Thr Thr Pro Gln Ile Val Glu His Leu Ala Gly Val Pro
 180 185 190
 Leu Ala Gln Ile Ser Ala Gly Glu Ala His Ser Met Ala Leu Ser Met
 195 200 205
 Ser Gly Asn Ile Tyr Ser Trp Gly Lys Asn Glu Cys Gly Gln Leu Gly
 210 215 220
 Leu Gly His Thr Glu Ser Lys Asp Asp Pro Ser Leu Ile Glu Gly Leu
 225 230 235 240
 Asp Asn Gln Lys Val Glu Phe Val Ala Cys Gly Gly Ser His Ser Ala
 245 250 255
 Leu Leu Thr Gln Asp Gly Leu Leu Phe Thr Phe Gly Ala Gly Lys His
 260 265 270
 Gly Gln Leu Gly His Asn Ser Thr Gln Asn Glu Leu Arg Pro Cys Leu
 275 280 285
 Val Ala Glu Leu Val Gly Tyr Arg Val Thr Gln Ile Ala Cys Gly Arg
 290 295 300
 Trp His Thr Leu Ala Tyr Val Ser Asp Leu Gly Lys Val Phe Ser Phe
 305 310 315 320
 Gly Ser Gly Lys Asp Gly Gln Leu Gly Asn Gly Gly Thr Arg Asp Gln
 325 330 335
 Leu Met Pro Leu Pro Val Lys Val Ser Ser Ser Glu Glu Leu Lys Leu
 340 345 350
 Glu Ser His Thr Ser Glu Lys Glu Leu Ile Met Ile Ala Gly Gly Asn
 355 360 365

Gln Ser Ile Leu Leu Trp Ile Lys Lys Glu Asn Ser Tyr Val Asn Leu
 370 375 380
 Lys Arg Thr Ile Pro Thr Leu Asn Glu Gly Thr Val Lys Arg Trp Ile
 385 390 395 400
 Ala Asp Val Glu Thr Lys Arg Trp Gln Ser Thr Lys Arg Glu Ile Gln
 405 410 415
 Glu Ile Phe Ser Ser Pro Ala Cys Leu Thr Gly Ser Phe Leu Arg Lys
 420 425 430
 Arg Arg Thr Thr Glu Met Met Pro Val Tyr Leu Asp Leu Asn Lys Ala
 435 440 445
 Arg Asn Ile Phe Arg Glu Leu Thr Gln Lys Asp Trp Ile Thr Asn Met
 450 455 460
 Ile Thr Thr Cys Leu Lys Asp Asn Leu Leu Lys Arg Leu Pro Phe His
 465 470 475 480
 Ser Pro Pro Gln Glu Ala Leu Glu Ile Phe Phe Leu Leu Pro Glu Cys
 485 490 495
 Pro Val Met His Ile Ser Asn Asn Trp Glu Ser Leu Val Val Pro Phe
 500 505 510
 Ala Lys Val Val Cys Lys Met Ser Asp Gln Ser Ser Leu Val Leu Glu
 515 520 525
 Glu Tyr Trp Ala Thr Leu Gln Glu Ser Thr Phe Ser Lys Leu Val Gln
 530 535 540
 Met Phe Lys Thr Ala Val Ile Cys Gln Leu Asp Tyr Trp Asp Glu Ser
 545 550 555 560
 Ala Glu Glu Asn Gly Asn Val Gln Ala Leu Leu Glu Met Leu Lys Lys
 565 570 575
 Leu His Arg Val Asn Gln Val Lys Cys Gln Leu Pro Glu Ser Ile Phe
 580 585 590
 Gln Val Asp Glu Leu Leu His Arg Leu Asn Phe Phe Val Glu Val Cys
 595 600 605
 Arg Arg Tyr Leu Trp Lys Met Thr Val Asp Ala Ser Glu Asn Val Gln
 610 615 620
 Cys Cys Val Ile Phe Ser His Phe Pro Phe Ile Phe Asn Asn Leu Ser
 625 630 635 640
 Lys Ile Lys Leu Leu His Thr Asp Thr Leu Leu Lys Ile Glu Ser Lys
 645 650 655
 Lys His Lys Ala Tyr Leu Arg Ser Ala Ala Ile Glu Glu Glu Arg Glu
 660 665 670
 Ser Glu Phe Ala Leu Arg Pro Thr Phe Asp Leu Thr Val Arg Arg Asn
 675 680 685
 His Leu Ile Glu Asp Val Leu Asn Gln Leu Ser Gln Phe Glu Asn Glu
 690 695 700
 Asp Leu Arg Lys Glu Leu Trp Val Ser Phe Ser Gly Glu Ile Gly Tyr
 705 710 715 720
 Asp Leu Gly Gly Val Lys Lys Glu Phe Phe Tyr Cys Leu Phe Ala Glu
 725 730 735
 Met Ile Gln Pro Glu Tyr Gly Met Phe Met Tyr Pro Glu Gly Ala Ser
 740 745 750
 Cys Met Trp Phe Pro Val Lys Pro Lys Phe Glu Lys Lys Arg Tyr Phe
 755 760 765
 Phe Phe Gly Val Leu Cys Gly Leu Ser Leu Phe Asn Cys Asn Val Ala
 770 775 780
 Asn Leu Pro Phe Pro Leu Ala Leu Phe Lys Lys Leu Leu Asp Gln Met
 785 790 795 800
 Pro Ser Leu Glu Asp Leu Lys Glu Leu Ser Pro Asp Leu Gly Lys Asn
 805 810 815
 Leu Gln Thr Leu Leu Asp Asp Glu Gly Asp Asn Phe Glu Glu Val Phe
 820 825 830
 Tyr Ile His Phe Asn Val His Trp Asp Arg Asn Asp Thr Asn Leu Ile
 835 840 845
 Pro Asn Gly Ser Ser Ile Thr Val Asn Gln Thr Asn Lys Arg Asp Tyr
 850 855 860
 Val Ser Lys Tyr Ile Asn Tyr Ile Phe Asn Asp Ser Val Lys Ala Val
 865 870 875 880

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<400> 1768

3632

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Asn Gly Pro Ile Tyr Asp Val Val Trp Asn Ser Ser Ser Thr Glu Phe
    275                280                285
Cys Ala Val Tyr Gly Phe Met Pro Ala Lys Ala Thr Ile Phe Asn Leu
    290                295                300
Lys Cys Asp Pro Val Phe Asp Phe Gly Thr Gly Pro Arg Asn Ala Ala
    305                310                315                320
Tyr Tyr Ser Pro His Gly His Ile Leu Val Leu Ala Gly Phe Gly Asn
    325                330                335
Leu Arg Gly Gln Met Glu Val Trp Asp Val Lys Asn Tyr Lys Leu Ile
    340                345                350
Ser Lys Pro Val Ala Ser Asp Ser Thr Tyr Phe Ala Trp Cys Pro Asp
    355                360                365
Gly Glu His Ile Leu Thr Ala Thr Cys Ala Pro Arg Leu Arg Val Asn
    370                375                380
Asn Gly Tyr Lys Ile Trp His Tyr Thr Gly Ser Ile Leu His Lys Tyr
    385                390                395                400
Asp Val Pro Ser Asn Ala Glu Leu Trp Gln Val Ser Trp Gln Pro Phe
    405                410                415
Leu Asp Gly Ile Phe Pro Ala Lys Thr Ile Thr Tyr Gln Ala Val Pro
    420                425                430
Ser Glu Val Pro Asn Glu Glu Pro Lys Val Ala Thr Ala Tyr Arg Pro
    435                440                445
Pro Ala Leu Arg Asn Lys Pro Ile Thr Asn Ser Lys Leu His Glu Glu
    450                455                460
Glu Pro Pro Gln Asn Met Lys Pro Gln Ser Gly Asn Asp Lys Pro Leu
    465                470                475                480
Ser Lys Thr Ala Leu Lys Asn Gln Arg Lys His Glu Ala Lys Lys Ala
    485                490                495
Ala Lys Gln Glu Ala Arg Ser Asp Lys Ser Pro Asp Leu Ala Pro Thr
    500                505                510
Pro Ala Pro Gln Ser Thr Pro Arg Asn Thr Val Ser Gln Ser Ile Ser
    515                520                525
Gly Asp Pro Glu Ile Asp Lys Lys Ile Lys Asn Leu Lys Lys Lys Leu
    530                535                540
Lys Ala Ile Glu Gln Leu Lys Glu Gln Ala Ala Thr Gly Lys Gln Leu
    545                550                555                560
Glu Lys Asn Gln Leu Glu Lys Ile Gln Lys Glu Thr Ala Leu Leu Gln
    565                570                575
Glu Leu Glu Asp Leu Glu Leu Gly Ile *
    580                585

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<210> 1769

<211> 841

<212> PRT

<213> Homo sapiens

<400> 1769

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Met Gly Thr Pro Arg Ala Gln His Pro Pro Pro Pro Gln Leu Leu Phe
  1                5                10                15
Leu Ile Leu Leu Ser Cys Pro Trp Ile Gln Gly Leu Pro Leu Lys Glu
    20                25                30
Glu Glu Ile Leu Pro Glu Pro Gly Ser Glu Thr Pro Thr Val Ala Ser
    35                40                45
Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg Gly Pro
    50                55                60
Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly Gly Glu
    65                70                75                80
Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr Thr Thr
    85                90                95
Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly Glu Gly
    100                105                110

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Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly	115	120	125
Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile	130	135	140
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu	145	150	155
Val	Leu	Ala	Gly	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala	165	170	175
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn	180	185	190
Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly	Gly	Gly	195	200	205
Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe	Pro	Pro	210	215	220
Arg	Pro	Ala	His	Gly	Asp	Val	Ser	Val	Thr	Asp	Leu	His	Pro	Gly	Gly	225	230	235
Thr	Ala	Thr	Phe	His	Cys	Asp	Ser	Gly	Tyr	Gln	Leu	Gln	Gly	Glu	Glu	245	250	255
Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly	Glu	Thr	260	265	270
Pro	Ser	Cys	Met	Ala	Ser	Cys	Gly	Gly	Thr	Ile	His	Asn	Ala	Thr	Leu	275	280	285
Gly	Arg	Ile	Val	Ser	Pro	Glu	Pro	Gly	Gly	Ala	Val	Gly	Pro	Asn	Leu	290	295	300
Thr	Cys	Arg	Trp	Val	Ile	Glu	Ala	Ala	Glu	Gly	Arg	Arg	Leu	His	Leu	305	310	315
His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu	Met	Val	325	330	335
Arg	Ser	Gly	Gly	Ser	Pro	Leu	Ser	Pro	Val	Ile	Tyr	Asp	Ser	Asp	Met	340	345	350
Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser	Leu	Tyr	355	360	365
Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu	Ser	Leu	370	375	380
Arg	Phe	Glu	Ala	Phe	Glu	Glu	Asp	Arg	Cys	Phe	Ala	Pro	Phe	Leu	Ala	385	390	395
His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly	Ala	Leu	405	410	415
Ala	Thr	Phe	Ser	Cys	Leu	Pro	Gly	Tyr	Ala	Leu	Glu	Pro	Pro	Gly	Pro	420	425	430
Pro	Asn	Ala	Ile	Glu	Cys	Val	Asp	Pro	Thr	Glu	Pro	His	Trp	Asn	Asp	435	440	445
Thr	Glu	Pro	Ala	Cys	Lys	Ala	Met	Cys	Gly	Gly	Glu	Leu	Ser	Glu	Pro	450	455	460
Ala	Gly	Val	Val	Leu	Ser	Pro	Asp	Trp	Pro	Gln	Ser	Tyr	Ser	Pro	Gly	465	470	475
Gln	Asp	Cys	Val	Trp	Gly	Val	His	Val	Gln	Glu	Glu	Lys	Arg	Ile	Leu	485	490	495
Leu	Gln	Val	Glu	Ile	Leu	Asn	Val	Arg	Glu	Gly	Asp	Met	Leu	Thr	Leu	500	505	510
Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu	Arg	Gly	515	520	525
Pro	Gln	Pro	Arg	Arg	Arg	Leu	Leu	Ser	Ser	Gly	Pro	Asp	Leu	Thr	Leu	530	535	540
Gln	Phe	Gln	Ala	Pro	Pro	Gly	Pro	Pro	Asn	Pro	Gly	Leu	Gly	Gln	Gly	545	550	555
Phe	Val	Leu	His	Phe	Lys	Glu	Val	Pro	Arg	Asn	Asp	Thr	Cys	Pro	Glu	565	570	575
Leu	Pro	Pro	Pro	Glu	Trp	Gly	Trp	Arg	Thr	Ala	Ser	His	Gly	Asp	Leu	580	585	590
Ile	Arg	Gly	Thr	Val	Leu	Thr	Tyr	Gln	Cys	Glu	Pro	Gly	Tyr	Glu	Leu	595	600	605
Leu	Gly	Ser	Asp	Ile	Leu	Thr	Cys	Gln	Trp	Asp	Leu	Ser	Trp	Ser	Ala	610	615	620

Ala Pro Pro Ala Cys Gln Lys Ile Met Thr Cys Ala Asp Pro Gly Glu
 625 630 635 640
 Ile Ala Asn Gly His Arg Thr Ala Ser Asp Ala Gly Phe Pro Val Gly
 645 650 655
 Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala
 660 665 670
 Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys Trp Ser
 675 680 685
 Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro
 690 695 700
 Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln
 705 710 715 720
 Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile
 725 730 735
 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr
 740 745 750
 Ser Gln Pro Pro Leu Cys Lys Val Thr Gln Thr Thr Asp Pro Ser Arg
 755 760 765
 Gln Leu Glu Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly
 770 775 780
 Leu Val Ile Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu
 785 790 795 800
 Gln Gly Lys Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro
 805 810 815
 Ile Thr Val Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala Gly Asp
 820 825 830
 Thr Arg Glu Tyr Glu Val Ser Ile *
 835 840

<210> 1770

<211> 854

<212> PRT

<213> Homo sapiens

<400> 1770

Met Gly Thr Pro Arg Ala Gln His Pro Pro Pro Pro Gln Leu Leu Phe
 1 5 10 15
 Leu Ile Leu Leu Ser Cys Pro Trp Ile Gln Gly Leu Pro Leu Lys Glu
 20 25 30
 Glu Glu Ile Leu Pro Glu Pro Gly Ser Glu Thr Pro Thr Val Ala Ser
 35 40 45
 Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg Gly Pro
 50 55 60
 Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly Gly Glu
 65 70 75 80
 Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr Thr Thr
 85 90 95
 Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly Glu Gly
 100 105 110
 Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr Leu Gly
 115 120 125
 Leu Leu Asp Cys Thr Tyr Ser Ile His Val Tyr Pro Gly Tyr Gly Ile
 130 135 140
 Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu Glu Leu Leu
 145 150 155 160
 Val Leu Ala Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu Leu Ala
 165 170 175
 Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro Thr Asn
 180 185 190
 Arg Leu Leu Leu His Phe Gln Ser Pro Arg Val Pro Arg Gly Gly Gly
 195 200 205

Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe	Pro	Pro
210						215					220				
Arg	Pro	Ala	His	Gly	Asp	Val	Ser	Val	Thr	Asp	Leu	His	Pro	Gly	Gly
225					230					235					240
Thr	Ala	Thr	Phe	His	Cys	Asp	Ser	Gly	Tyr	Gln	Leu	Gln	Gly	Glu	Glu
				245					250						255
Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly	Glu	Thr
			260					265					270		
Pro	Ser	Cys	Met	Ala	Ser	Cys	Gly	Gly	Thr	Ile	His	Asn	Ala	Thr	Leu
			275					280					285		
Gly	Arg	Ile	Val	Ser	Pro	Glu	Pro	Gly	Gly	Ala	Val	Gly	Pro	Asn	Leu
			290				295					300			
Thr	Cys	Arg	Trp	Val	Ile	Glu	Ala	Ala	Glu	Gly	Arg	Arg	Leu	His	Leu
305					310					315					320
His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu	Met	Val
				325					330						335
Arg	Ser	Gly	Gly	Ser	Pro	Leu	Ser	Pro	Val	Ile	Tyr	Asp	Ser	Asp	Met
			340						345					350	
Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser	Leu	Tyr
			355				360					365			
Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu	Ser	Leu
			370				375					380			
Arg	Phe	Glu	Ala	Phe	Glu	Glu	Asp	Arg	Cys	Phe	Ala	Pro	Phe	Leu	Ala
385					390					395					400
His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly	Ala	Leu
				405						410					415
Ala	Thr	Phe	Ser	Cys	Leu	Pro	Gly	Tyr	Ala	Leu	Glu	Pro	Pro	Gly	Pro
			420					425						430	
Pro	Asn	Ala	Ile	Glu	Cys	Val	Asp	Pro	Thr	Glu	Pro	His	Trp	Asn	Asp
			435				440					445			
Thr	Glu	Pro	Ala	Cys	Lys	Ala	Met	Cys	Gly	Gly	Glu	Leu	Ser	Glu	Pro
			450				455					460			
Ala	Gly	Val	Val	Leu	Ser	Pro	Asp	Trp	Pro	Gln	Ser	Tyr	Ser	Pro	Gly
465					470					475					480
Gln	Asp	Cys	Val	Trp	Gly	Val	His	Val	Gln	Glu	Glu	Lys	Arg	Ile	Leu
				485					490						495
Leu	Gln	Val	Glu	Ile	Leu	Asn	Val	Arg	Glu	Gly	Asp	Met	Leu	Thr	Leu
			500					505						510	
Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu	Arg	Gly
			515				520					525			
Pro	Gln	Pro	Arg	Arg	Arg	Leu	Leu	Ser	Ser	Gly	Pro	Asp	Leu	Thr	Leu
			530			535					540				
Gln	Phe	Gln	Ala	Pro	Pro	Gly	Pro	Pro	Asn	Pro	Gly	Leu	Gly	Gln	Gly
545					550					555					560
Phe	Val	Leu	His	Phe	Lys	Glu	Val	Pro	Arg	Asn	Asp	Thr	Cys	Pro	Glu
				565					570					575	
Leu	Pro	Pro	Pro	Glu	Trp	Gly	Trp	Arg	Thr	Ala	Ser	His	Gly	Asp	Leu
			580					585					590		
Ile	Arg	Gly	Thr	Val	Leu	Thr	Tyr	Gln	Cys	Glu	Pro	Gly	Tyr	Glu	Leu
			595				600					605			
Leu	Gly	Ser	Asp	Ile	Leu	Thr	Cys	Gln	Trp	Asp	Leu	Ser	Trp	Ser	Ala
			610			615					620				
Ala	Pro	Pro	Ala	Cys	Gln	Lys	Ile	Met	Thr	Cys	Ala	Asp	Pro	Gly	Glu
625					630					635					640
Ile	Ala	Asn	Gly	His	Arg	Thr	Ala	Ser	Asp	Ala	Gly	Phe	Pro	Val	Gly
				645					650					655	
Ser	His	Val	Gln	Tyr	Arg	Cys	Leu	Pro	Gly	Tyr	Ser	Leu	Glu	Gly	Ala
			660					665					670		
Ala	Met	Leu	Thr	Cys	Tyr	Ser	Arg	Asp	Thr	Gly	Thr	Pro	Lys	Trp	Ser
			675				680					685			
Asp	Arg	Val	Pro	Lys	Cys	Ala	Leu	Lys	Tyr	Glu	Pro	Cys	Leu	Asn	Pro
			690			695					700				
Gly	Val	Pro	Glu	Asn	Gly	Tyr	Gln	Thr	Leu	Tyr	Lys	His	His	Tyr	Gln
705					710					715					720

Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile
 725 730 735
 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr
 740 745 750
 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn
 755 760 765
 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu
 770 775 780
 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile
 785 790 795 800
 Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys
 805 810 815
 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val
 820 825 830
 Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala Gly Asp Thr Arg Glu
 835 840 845
 Tyr Glu Val Ser Ile *
 850 853

<210> 1771
 <211> 650
 <212> PRT
 <213> Homo sapiens

<400> 1771
 Met Lys Gln Ile Leu Gly Val Ile Asp Lys Lys Leu Arg Asn Leu Glu
 1 5 10 15
 Lys Lys Lys Gly Lys Leu Asp Asp Tyr Gln Glu Arg Met Asn Lys Gly
 20 25 30
 Glu Arg Leu Asn Gln Asp Gln Leu Asp Ala Val Ser Lys Tyr Gln Glu
 35 40 45
 Val Thr Asn Asn Leu Glu Phe Ala Lys Glu Leu Gln Arg Ser Phe Met
 50 55 60
 Ala Leu Ser Gln Asp Ile Gln Lys Thr Ile Lys Lys Thr Ala Arg Arg
 65 70 75 80
 Glu Gln Leu Met Arg Glu Glu Ala Glu Gln Lys Arg Leu Lys Thr Val
 85 90 95
 Leu Glu Leu Gln Tyr Val Leu Asp Lys Leu Gly Asp Asp Glu Val Arg
 100 105 110
 Thr Asp Leu Lys Gln Gly Leu Asn Gly Val Pro Ile Leu Ser Glu Glu
 115 120 125
 Glu Leu Ser Leu Leu Asp Glu Phe Tyr Lys Leu Val Asp Pro Glu Arg
 130 135 140
 Asp Met Ser Leu Arg Leu Asn Glu Gln Tyr Glu His Ala Ser Ile His
 145 150 155 160
 Leu Trp Asp Leu Leu Glu Gly Lys Glu Lys Pro Val Cys Gly Thr Thr
 165 170 175
 Tyr Lys Val Leu Lys Glu Ile Val Glu Arg Val Phe Gln Ser Asn Tyr
 180 185 190
 Phe Asp Ser Thr His Asn His Gln Asn Gly Leu Cys Glu Glu Glu Glu
 195 200 205
 Ala Ala Ser Ala Pro Ala Val Glu Asp Gln Val Pro Glu Ala Glu Pro
 210 215 220
 Glu Pro Ala Glu Glu Tyr Thr Glu Gln Ser Glu Val Glu Ser Thr Glu
 225 230 235 240
 Tyr Val Asn Arg Gln Phe Met Ala Glu Thr Gln Phe Thr Ser Gly Glu
 245 250 255
 Lys Glu Gln Val Asp Glu Trp Thr Val Glu Thr Val Glu Val Val Asn
 260 265 270
 Ser Leu Gln Gln Gln Pro Gln Ala Ala Ser Pro Ser Val Pro Glu Pro
 275 280 285

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His Ser Leu Thr Pro Val Ala Gln Ala Asp Pro Leu Val Arg Arg Gln
 290          295          300
Arg Val Gln Asp Leu Met Ala Gln Met Gln Gly Pro Asp Asn Phe Ile
305          310          315          320
Gln Asp Ser Met Leu Asp Phe Glu Asn Gln Thr Leu Asp Pro Ala Ile
          325          330          335
Val Ser Ala Gln Pro Met Asn Pro Thr Gln Asn Met Asp Met Pro Gln
          340          345          350
Leu Val Cys Pro Pro Val His Ser Glu Ser Arg Leu Ala Gln Pro Asn
          355          360          365
Gln Val Pro Val Gln Pro Glu Ala Thr Gln Val Pro Leu Val Ser Ser
          370          375          380
Thr Ser Glu Gly Tyr Thr Ala Ser Gln Pro Leu Tyr Gln Pro Ser His
385          390          395          400
Ala Thr Glu Gln Arg Pro Gln Lys Glu Pro Ile Asp Gln Ile Gln Ala
          405          410          415
Thr Ile Ser Leu Asn Thr Asp Gln Thr Thr Ala Ser Ser Ser Leu Pro
          420          425          430
Ala Ala Ser Gln Pro Gln Val Phe Gln Ala Gly Thr Ser Lys Pro Leu
          435          440          445
His Ser Ser Gly Ile Asn Val Asn Ala Ala Pro Phe Gln Ser Met Gln
          450          455          460
Thr Val Phe Asn Met Asn Ala Pro Val Pro Pro Val Asn Glu Pro Glu
465          470          475          480
Thr Leu Lys Gln Gln Asn Gln Tyr Gln Ala Ser Tyr Asn Gln Ser Phe
          485          490          495
Ser Ser Gln Pro His Gln Val Glu Gln Thr Glu Leu Gln Gln Glu Gln
          500          505          510
Leu Gln Thr Val Val Gly Thr Tyr His Gly Ser Pro Asp Gln Ser His
          515          520          525
Gln Val Thr Gly Asn His Gln Gln Pro Pro Gln Gln Asn Thr Gly Phe
          530          535          540
Pro Arg Ser Asn Gln Pro Tyr Tyr Asn Ser Arg Gly Val Ser Arg Gly
545          550          555          560
Gly Ser Arg Gly Ala Arg Gly Leu Met Asn Gly Tyr Arg Gly Pro Ala
          565          570          575
Met Asp Ser Glu Glu Asp Met Met Val Thr Ala Leu His Ser Leu Thr
          580          585          590
Leu Gln Thr Val Val Ile His Ser Leu Ser Ser Val Leu Pro Gly Ile
          595          600          605
Thr Leu Ala Ile Asn Gly Met Asp Ile Ser Arg Ile Ser Ser Glu Ala
          610          615          620
Leu Gly Arg Val Asp His Gly Glu Pro His Glu Val Val Glu Gly Pro
625          630          635          640
Gln Asp Pro Thr Glu Gly Cys Arg Lys *
          645          649

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<210> 1772

<211> 574

<212> PRT

<213> Homo sapiens

<400> 1772

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Met Ala His Tyr Ile Thr Phe Leu Cys Met Val Leu Val Leu Leu Leu
 1          5          10          15
Gln Asn Ser Val Leu Ala Glu Asp Gly Glu Val Arg Ser Ser Cys Arg
          20          25          30
Thr Ala Pro Thr Asp Leu Val Phe Ile Leu Asp Gly Ser Tyr Ser Val
          35          40          45
Gly Pro Glu Asn Phe Glu Ile Val Lys Lys Trp Leu Val Asn Ile Thr
          50          55          60

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Lys	Asn	Phe	Asp	Ile	Gly	Pro	Lys	Phe	Ile	Gln	Val	Gly	Val	Val	Gln
65					70					75					80
Tyr	Ser	Asp	Tyr	Pro	Val	Leu	Glu	Ile	Pro	Leu	Gly	Ser	Tyr	Asp	Ser
				85					90					95	
Gly	Glu	His	Leu	Thr	Ala	Ala	Val	Glu	Ser	Ile	Leu	Tyr	Leu	Gly	Gly
			100					105					110		
Asn	Thr	Lys	Thr	Gly	Lys	Ala	Ile	Gln	Phe	Ala	Leu	Asp	Tyr	Leu	Phe
		115				120						125			
Ala	Lys	Ser	Ser	Arg	Phe	Leu	Thr	Lys	Ile	Ala	Val	Val	Leu	Thr	Asp
		130				135						140			
Gly	Lys	Ser	Gln	Asp	Asp	Val	Lys	Asp	Ala	Ala	Gln	Ala	Ala	Arg	Asp
145					150					155					160
Ser	Lys	Ile	Thr	Leu	Phe	Ala	Ile	Gly	Val	Gly	Ser	Glu	Thr	Glu	Asp
				165				170						175	
Ala	Glu	Leu	Arg	Ala	Ile	Ala	Asn	Lys	Pro	Ser	Ser	Thr	Tyr	Val	Phe
			180					185						190	
Tyr	Val	Glu	Asp	Tyr	Ile	Ala	Ile	Ser	Lys	Ile	Arg	Glu	Val	Met	Lys
		195					200						205		
Gln	Lys	Leu	Cys	Glu	Glu	Ser	Val	Cys	Pro	Thr	Arg	Ile	Pro	Val	Ala
		210				215						220			
Ala	Arg	Asp	Glu	Arg	Gly	Phe	Asp	Ile	Leu	Leu	Gly	Leu	Asp	Val	Asn
225					230					235					240
Lys	Lys	Val	Lys	Lys	Arg	Ile	Gln	Leu	Ser	Pro	Lys	Lys	Ile	Lys	Gly
				245					250					255	
Tyr	Glu	Val	Thr	Ser	Lys	Val	Asp	Leu	Ser	Glu	Leu	Thr	Ser	Asn	Val
			260					265						270	
Phe	Pro	Glu	Gly	Leu	Pro	Pro	Ser	Tyr	Val	Phe	Val	Ser	Thr	Gln	Arg
		275					280						285		
Phe	Lys	Val	Lys	Lys	Ile	Trp	Asp	Leu	Trp	Arg	Ile	Leu	Thr	Ile	Asp
		290				295					300				
Gly	Arg	Pro	Gln	Ile	Ala	Val	Thr	Leu	Asn	Gly	Val	Asp	Lys	Ile	Leu
305					310					315					320
Leu	Phe	Thr	Thr	Thr	Ser	Val	Ile	Asn	Gly	Ser	Gln	Val	Val	Thr	Phe
				325					330					335	
Ala	Asn	Pro	Gln	Val	Lys	Thr	Leu	Phe	Asp	Glu	Gly	Trp	His	Gln	Ile
			340					345					350		
Arg	Leu	Leu	Val	Thr	Glu	Gln	Asp	Val	Thr	Leu	Tyr	Ile	Asp	Asp	Gln
		355					360					365			
Gln	Ile	Glu	Asn	Lys	Pro	Leu	His	Pro	Val	Leu	Gly	Ile	Leu	Ile	Asn
		370				375					380				
Gly	Gln	Thr	Gln	Ile	Gly	Lys	Tyr	Ser	Gly	Lys	Glu	Glu	Thr	Val	Gln
385					390					395					400
Phe	Asp	Val	Gln	Lys	Leu	Arg	Ile	Tyr	Cys	Asp	Pro	Glu	Gln	Asn	Asn
				405					410					415	
Arg	Glu	Thr	Ala	Cys	Glu	Ile	Pro	Gly	Phe	Cys	Leu	Asn	Gly	Pro	Ser
			420					425					430		
Asp	Val	Gly	Ser	Thr	Pro	Ala	Pro	Cys	Ile	Cys	Pro	Pro	Gly	Lys	Pro
		435					440					445			
Gly	Leu	Gln	Gly	Pro	Lys	Gly	Asp	Pro	Gly	Leu	Pro	Gly	Asn	Pro	Gly
		450				455					460				
Tyr	Pro	Gly	Gln	Pro	Gly	Gln	Asp	Gly	Lys	Pro	Val	Ser	Thr	Glu	Ser
465					470					475					480
Leu	Val	Ile	Ser	Gly	Ile	Ser	Gly	Ile	Thr	Gly	Tyr	Gln	Gly	Ile	Ala
				485					490					495	
Gly	Thr	Pro	Gly	Val	Pro	Gly	Ser	Pro	Gly	Ile	Gln	Gly	Ala	Arg	Gly
			500					505					510		
Leu	Pro	Gly	Tyr	Lys	Gly	Glu	Pro	Gly	Arg	Asp	Gly	Asp	Lys	Gly	Asp
		515					520					525			
Arg	Gly	Leu	Pro	Gly	Phe	Pro	Gly	Leu	His	Gly	Met	Pro	Gly	Ser	Lys
		530					535					540			
Gly	Glu	Met	Gly	Ala	Lys	Gly	Asp	Lys	Gly	Ser	Pro	Gly	Phe	Tyr	Gly
545					550					555					560
Lys	Lys	Gly	Ser	Ile	Asp	His	Thr	Thr	Lys	Tyr	Ser	Tyr	*		
				565					570				573		

<210> 1773
 <211> 1269
 <212> PRT
 <213> Homo sapiens

<400> 1773
 Met Ser Ala Pro Ala Gly Ser Ser His Pro Ala Ala Ser Ala Arg Ile
 1 5 10 15
 Pro Pro Lys Phe Gly Gly Ser Ala Val Ser Gly Ala Ala Ala Pro Ala
 20 25 30
 Gly Pro Gly Ala Gly Pro Ala Pro His Gln Gln Asn Gly Pro Ala Gln
 35 40 45
 Asn Gln Met Gln Val Pro Ser Gly Tyr Gly Leu His His Gln Asn Tyr
 50 55 60
 Ile Ala Pro Ser Gly His Tyr Ser Gln Gly Pro Gly Lys Met Thr Ser
 65 70 75 80
 Leu Pro Leu Asp Thr Gln Cys Gly Asp Tyr Tyr Ser Ala Leu Tyr Thr
 85 90 95
 Val Pro Thr Gln Asn Val Thr Pro Asn Thr Val Asn Gln Gln Pro Gly
 100 105 110
 Ala Gln Gln Leu Tyr Ser Arg Gly Pro Pro Ala Pro His Ile Val Gly
 115 120 125
 Ser Thr Leu Gly Ser Phe Gln Gly Ala Ala Ser Ser Ala Ser His Leu
 130 135 140
 His Thr Ser Ala Ser Gln Pro Tyr Ser Ser Phe Val Asn His Tyr Asn
 145 150 155 160
 Ser Pro Ala Met Tyr Ser Ala Ser Ser Ser Val Ala Ser Gln Gly Phe
 165 170 175
 Pro Ser Thr Cys Gly His Tyr Ala Met Ser Thr Val Ser Asn Ala Ala
 180 185 190
 Tyr Pro Ser Val Ser Tyr Pro Ser Leu Pro Ala Gly Asp Thr Tyr Gly
 195 200 205
 Gln Met Phe Thr Ser Gln Asn Ala Pro Thr Val Arg Pro Val Lys Asp
 210 215 220
 Asn Ser Phe Ser Gly Gln Asn Thr Ala Ile Ser His Pro Ser Pro Leu
 225 230 235 240
 Pro Pro Leu Pro Ser Gln Gln His His Gln Gln Gln Ser Leu Ser Gly
 245 250 255
 Tyr Ser Thr Leu Thr Trp Ser Ser Pro Gly Leu Pro Ser Thr Gln Asp
 260 265 270
 Asn Leu Ile Arg Asn His Thr Gly Ser Leu Ala Val Ala Asn Asn Asn
 275 280 285
 Pro Thr Ile Thr Val Ala Asp Ser Leu Ser Cys Pro Val Met Gln Asn
 290 295 300
 Val Gln Pro Pro Lys Ser Ser Pro Val Val Ser Thr Val Leu Ser Gly
 305 310 315 320
 Ser Ser Gly Ser Ser Ser Thr Arg Thr Pro Pro Thr Ala Asn His Pro
 325 330 335
 Val Glu Pro Val Thr Ser Val Thr Gln Pro Ser Glu Leu Leu Gln Gln
 340 345 350
 Lys Gly Val Gln Tyr Gly Glu Tyr Val Asn Asn Gln Ala Ser Ser Ala
 355 360 365
 Pro Thr Pro Leu Ser Ser Thr Ser Asp Asp Glu Glu Glu Glu Glu Glu
 370 375 380
 Asp Glu Glu Ala Gly Val Asp Ser Ser Ser Thr Thr Ser Ser Ala Ser
 385 390 395 400
 Pro Met Pro Asn Ser Tyr Asp Ala Leu Glu Gly Gly Ser Tyr Pro Asp
 405 410 415
 Met Leu Ser Ser Ser Ala Ser Ser Pro Ala Pro Asp Pro Ala Pro Glu
 420 425 430

Pro Asp Pro Ala Ser Ala Pro Ala Pro Ala Ser Ala Pro Ala Pro Val
 435 440 445
 Val Pro Gln Pro Ser Lys Met Ala Lys Pro Leu Ala Met Ala Ile Gln
 450 455 460
 His Phe Ser Leu Val Ile Arg Met Leu Gln His His Leu Phe Leu Glu
 465 470 475 480
 Tyr Ser Pro Ser Asn Pro Val Tyr Ser Gly Phe Gln Gln Tyr Pro Gln
 485 490 495
 Gln Tyr Pro Gly Val Asn Gln Leu Ser Ser Ser Ile Gly Gly Leu Ser
 500 505 510
 Leu Gln Ser Ser Pro Gln Pro Glu Ser Leu Arg Pro Val Asn Leu Thr
 515 520 525
 Gln Glu Arg Asn Ile Leu Pro Met Thr Pro Val Trp Ala Pro Val Pro
 530 535 540
 Asn Leu Asn Ala Asp Leu Lys Lys Leu Asn Cys Ser Pro Asp Ser Phe
 545 550 555 560
 Arg Cys Thr Leu Thr Asn Ile Pro Gln Thr Gln Ala Leu Leu Asn Lys
 565 570 575
 Ala Lys Leu Pro Leu Gly Leu Leu Leu His Pro Phe Arg Asp Leu Thr
 580 585 590
 Gln Leu Pro Val Ile Thr Ser Asn Thr Ile Val Arg Cys Arg Ser Cys
 595 600 605
 Arg Thr Tyr Ile Asn Pro Phe Val Ser Phe Ile Asp Gln Arg Arg Trp
 610 615 620
 Lys Cys Asn Leu Cys Tyr Arg Val Asn Asp Val Pro Glu Glu Phe Met
 625 630 635 640
 Tyr Asn Pro Leu Thr Arg Ser Tyr Gly Glu Pro His Lys Arg Pro Glu
 645 650 655
 Val Gln Asn Ser Thr Val Glu Phe Ile Ala Ser Ser Asp Tyr Met Leu
 660 665 670
 Arg Pro Pro Gln Pro Ala Val Tyr Leu Phe Val Leu Asp Val Ser His
 675 680 685
 Asn Ala Val Glu Ala Gly Tyr Leu Thr Ile Leu Cys Gln Ser Leu Leu
 690 695 700
 Glu Asn Leu Asp Lys Leu Pro Gly Asp Ser Arg Thr Arg Ile Gly Phe
 705 710 715 720
 Met Thr Phe Asp Ser Thr Ile His Phe Tyr Asn Leu Gln Glu Gly Leu
 725 730 735
 Ser Gln Pro Gln Met Leu Ile Val Ser Asp Ile Asp Asp Val Phe Leu
 740 745 750
 Pro Thr Pro Asp Ser Leu Leu Val Asn Leu Tyr Glu Ser Lys Glu Leu
 755 760 765
 Ile Lys Asp Leu Leu Asn Ala Leu Pro Asn Met Phe Thr Asn Thr Arg
 770 775 780
 Glu Thr His Ser Ala Leu Gly Pro Ala Leu Gln Ala Ala Phe Lys Leu
 785 790 795 800
 Met Ser Pro Thr Gly Gly Arg Val Ser Val Phe Gln Thr Gln Leu Pro
 805 810 815
 Ser Leu Gly Ala Gly Leu Leu Gln Ser Arg Glu Asp Pro Asn Gln Arg
 820 825 830
 Ser Ser Thr Lys Val Val Gln His Leu Gly Pro Ala Thr Asp Phe Tyr
 835 840 845
 Lys Lys Leu Ala Leu Asp Cys Ser Gly Gln Gln Thr Ala Val Asp Leu
 850 855 860
 Phe Leu Leu Ser Ser Gln Tyr Ser Asp Leu Ala Ser Leu Ala Cys Met
 865 870 875 880
 Ser Lys Tyr Ser Ala Gly Cys Ile Tyr Tyr Tyr Pro Ser Phe His Tyr
 885 890 895
 Thr His Asn Pro Ser Gln Ala Glu Lys Leu Gln Lys Asp Leu Lys Arg
 900 905 910
 Tyr Leu Thr Arg Lys Ile Gly Phe Glu Ala Val Met Arg Ile Arg Cys
 915 920 925
 Thr Lys Gly Leu Ser Met His Thr Phe His Gly Asn Phe Phe Val Arg
 930 935 940

Ser Thr Asp Leu Leu Ser Leu Ala Asn Ile Asn Pro Asp Ala Gly Phe
 945 950 955 960
 Ala Val Gln Leu Ser Ile Glu Glu Ser Leu Thr Asp Thr Ser Leu Val
 965 970 975
 Cys Phe Gln Thr Ala Leu Leu Tyr Thr Ser Ser Lys Gly Glu Arg Arg
 980 985 990
 Ile Arg Val His Thr Leu Cys Leu Pro Val Val Ser Ser Leu Ala Asp
 995 1000 1005
 Val Tyr Ala Gly Val Asp Val Gln Ala Ala Ile Cys Leu Leu Ala Asn
 1010 1015 1020
 Met Ala Val Asp Arg Ser Val Ser Ser Ser Leu Ser Asp Ala Arg Asp
 1025 1030 1035 1040
 Ala Leu Val Asn Ala Val Val Asp Ser Leu Ser Ala Tyr Gly Ser Thr
 1045 1050 1055
 Val Ser Asn Leu Gln His Ser Ala Leu Met Ala Pro Ser Ser Leu Lys
 1060 1065 1070
 Leu Phe Pro Leu Tyr Val Leu Ala Leu Leu Lys Gln Lys Ala Phe Arg
 1075 1080 1085
 Thr Gly Thr Ser Thr Arg Leu Asp Asp Arg Val Tyr Ala Met Cys Gln
 1090 1095 1100
 Ile Lys Ser Gln Pro Leu Val His Leu Met Lys Met Ile His Pro Asn
 1105 1110 1115 1120
 Leu Tyr Arg Ile Asp Arg Leu Thr Asp Glu Gly Ala Val His Val Asn
 1125 1130 1135
 Asp Arg Ile Val Pro Gln Pro Pro Leu Gln Lys Leu Ser Ala Glu Lys
 1140 1145 1150
 Leu Thr Arg Glu Gly Ala Phe Leu Met Asp Cys Gly Ser Val Phe Tyr
 1155 1160 1165
 Ile Trp Val Gly Lys Gly Cys Asp Asn Asn Phe Ile Glu Asp Val Leu
 1170 1175 1180
 Gly Tyr Thr Asn Phe Ala Ser Ile Pro Gln Lys Met Thr His Leu Pro
 1185 1190 1195 1200
 Glu Leu Asp Thr Leu Ser Ser Glu Arg Ala Arg Ser Phe Ile Thr Trp
 1205 1210 1215
 Leu Arg Asp Ser Arg Pro Leu Ser Pro Ile Leu His Ile Val Lys Asp
 1220 1225 1230
 Glu Ser Pro Ala Lys Ala Glu Phe Gln His Leu Ile Glu Asp Arg
 1235 1240 1245
 Thr Glu Ala Ala Phe Ser Tyr Tyr Glu Phe Leu Leu His Val Gln Gln
 1250 1255 1260
 Gln Ile Cys Lys *
 1265 1268

<210> 1774

<211> 441

<212> PRT

<213> Homo sapiens

<400> 1774

Met Glu Thr Gly Gln Arg Thr His Ala Ser Gly Thr Tyr Ser Phe Leu
 1 5 10 15
 Asp Arg Thr Gln His Ser Asp Ile Lys Ala Asp Cys Asn Thr Cys Val
 20 25 30
 Glu Ile Glu Asp Arg Lys Val Ser Arg Gln Gln Met Asn Cys Glu Arg
 35 40 45
 Glu Gln Leu Arg Gly Asn Gln Glu Ala Ala Ala Pro Asp Thr Met
 50 55 60
 Ala Gln Pro Tyr Ala Ser Ala Gln Phe Ala Pro Pro Gln Asn Gly Ile
 65 70 75 80
 Pro Ala Glu Tyr Thr Ala Pro His Pro His Pro Ala Pro Glu Tyr Thr
 85 90 95

Gly Gln Thr Thr Val Pro Glu His Thr Leu Asn Leu Tyr Pro Pro Ala
 100 105 110
 Gln Thr His Ser Glu Gln Ser Pro Ala Asp Thr Ser Ala Gln Thr Val
 115 120 125
 Ser Gly Thr Ala Thr Gln Thr Asp Asp Ala Ala Pro Thr Asp Gly Gln
 130 135 140
 Pro Gln Thr Gln Pro Ser Glu Asn Thr Glu Asn Lys Ser Gln Pro Lys
 145 150 155 160
 Arg Leu His Val Ser Asn Ile Pro Phe Arg Phe Arg Asp Pro Asp Leu
 165 170 175
 Arg Gln Met Phe Gly Gln Phe Gly Lys Ile Leu Asp Val Glu Ile Ile
 180 185 190
 Phe Asn Glu Arg Gly Ser Lys Gly Phe Gly Phe Val Thr Phe Glu Asn
 195 200 205
 Ser Ala Asp Ala Asp Arg Ala Arg Glu Lys Leu His Gly Thr Val Val
 210 215 220
 Glu Gly Arg Lys Ile Glu Val Asn Asn Ala Thr Ala Arg Val Met Thr
 225 230 235 240
 Asn Lys Lys Thr Val Asn Pro Tyr Thr Asn Gly Trp Lys Leu Asn Pro
 245 250 255
 Val Val Gly Ala Val Tyr Ser Pro Glu Phe Tyr Ala Gly Thr Val Leu
 260 265 270
 Leu Cys Gln Ala Asn Gln Glu Gly Ser Ser Met Tyr Ser Ala Pro Ser
 275 280 285
 Ser Leu Val Tyr Thr Ser Ala Met Pro Gly Phe Pro Tyr Pro Ala Ala
 290 295 300
 Thr Ala Ala Ala Ala Tyr Arg Gly Ala His Leu Arg Gly Arg Gly Arg
 305 310 315 320
 Thr Val Tyr Asn Thr Phe Arg Ala Ala Ala Pro Pro Pro Pro Ile Pro
 325 330 335
 Ala Tyr Gly Gly Val Val Tyr Gln Asp Gly Phe Tyr Gly Ala Asp Ile
 340 345 350
 Tyr Gly Gly Tyr Ala Ala Tyr Arg Tyr Ala Gln Pro Thr Pro Ala Thr
 355 360 365
 Ala Ala Ala Tyr Ser Asp Ser Tyr Gly Arg Val Tyr Ala Ala Asp Pro
 370 375 380
 Tyr His His Ala Leu Ala Pro Ala Pro Thr Tyr Gly Val Gly Ala Met
 385 390 395 400
 Asn Ala Phe Ala Pro Leu Thr Asp Ala Lys Thr Arg Ser His Ala Asp
 405 410 415
 Asp Val Gly Leu Val Leu Ser Ser Leu Gln Ala Ser Ile Tyr Arg Gly
 420 425 430
 Gly Tyr Asn Arg Phe Ala Pro Tyr *
 435 440

<210> 1775

<211> 747

<212> PRT

<213> Homo sapiens

<400> 1775

Met Thr Ile Pro Gly Leu Asp Trp Gly Met Glu Glu Val Met Gln Lys
 1 5 10 15
 Asp Gln Lys Lys Val Pro Gln Lys Lys Val Pro Tyr Ala Lys Pro Ile
 20 25 30
 Pro Ala Gln Phe Gln Gln Ala Trp Met Gln Asn Lys Val Pro Ile Pro
 35 40 45
 Ala Pro Asn Glu Val Leu Asn Asp Arg Lys Glu Asp Ile Lys Leu Glu
 50 55 60
 Glu Lys Lys Lys Thr Gln Ala Glu Ile Glu Gln Glu Met Ala Thr Leu
 65 70 75 80

Gln Tyr Thr Asn Pro Gln Leu Leu Glu Gln Leu Lys Ile Glu Arg Leu
 85 90 95
 Ala Gln Lys Gln Val Glu Gln Ile Gln Pro Pro Pro Ser Ser Gly Thr
 100 105 110
 Pro Leu Leu Gly Pro Gln Pro Phe Pro Gly Gln Gly Pro Met Ser Gln
 115 120 125
 Ile Pro Gln Gly Phe Gln Gln Pro His Pro Ser Gln Gln Met Pro Met
 130 135 140
 Asn Met Ala Gln Met Gly Pro Pro Gly Pro Gln Gly Gln Phe Arg Pro
 145 150 155 160
 Pro Gly Pro Gln Gly Gln Met Gly Pro Gln Gly Pro Pro Leu His Gln
 165 170 175
 Gly Gly Gly Gly Pro Gln Gly Phe Met Gly Pro Gln Gly Pro Gln Gly
 180 185 190
 Pro Pro Gln Gly Leu Pro Arg Pro Gln Asp Met His Gly Pro Gln Gly
 195 200 205
 Met Gln Arg His Pro Gly Pro His Gly Pro Leu Gly Pro Gln Gly Pro
 210 215 220
 Pro Gly Pro Gln Gly Ser Ser Gly Pro Gln Gly His Met Gly Pro Gln
 225 230 235 240
 Gly Pro Pro Gly Pro Gln Gly His Ile Gly Pro Gln Gly Pro Pro Gly
 245 250 255
 Pro Gln Gly His Leu Gly Pro Gln Gly Pro Pro Gly Thr Gln Gly Met
 260 265 270
 Gln Gly Pro Pro Gly Pro Arg Gly Met Gln Gly Pro Pro His Pro His
 275 280 285
 Gly Ile Gln Gly Gly Pro Gly Ser Gln Gly Ile Gln Gly Pro Val Ser
 290 295 300
 Gln Gly Pro Leu Met Gly Leu Asn Pro Arg Gly Met Gln Gly Pro Pro
 305 310 315 320
 Gly Pro Arg Glu Asn Gln Gly Pro Ala Pro Gln Gly Met Ile Met Gly
 325 330 335
 His Pro Pro Gln Glu Met Arg Gly Pro His Pro Pro Gly Gly Leu Leu
 340 345 350
 Gly His Gly Pro Gln Glu Met Arg Gly Pro Gln Glu Ile Arg Gly Met
 355 360 365
 Gln Gly Pro Pro Pro Gln Gly Ser Met Leu Gly Pro Pro Gln Glu Leu
 370 375 380
 Arg Gly Pro Pro Gly Ser Gln Ser Gln Gln Gly Pro Pro Gln Gly Ser
 385 390 395 400
 Leu Gly Pro Pro Pro Gln Gly Gly Met Gln Gly Pro Pro Gly Pro Gln
 405 410 415
 Gly Gln Gln Asn Pro Ala Arg Gly Pro His Pro Ser Gln Gly Pro Ile
 420 425 430
 Pro Phe Gln Gln Lys Thr Pro Leu Leu Gly Asp Gly Pro Arg Ala
 435 440 445
 Pro Phe Asn Gln Glu Gly Gln Ser Thr Gly Pro Pro Pro Leu Ile Pro
 450 455 460
 Gly Leu Gly Gln Gln Gly Ala Gln Gly Arg Ile Pro Pro Leu Asn Pro
 465 470 475 480
 Gly Gln Gly Pro Gly Pro Asn Lys Val Ser Glu Glu Glu Pro Arg Arg
 485 490 495
 Gly Met Arg Ala Val Leu Pro Pro Glu Glu Gly Met Val Phe Leu Val
 500 505 510
 Leu Lys Thr Leu Val Gln Arg Arg Ile Leu Met Leu Met Arg Glu Ala
 515 520 525
 Ala Arg Gly Arg Asp Leu Arg Gly Arg Gly Arg Thr Pro Arg Gly
 530 535 540
 Gly Arg Lys Gly Leu Leu Pro Thr Pro Asp Glu Phe Pro Arg Phe Glu
 545 550 555 560
 Gly Gly Arg Lys Pro Asp Ser Trp Asp Gly Asn Arg Glu Pro Gly Pro
 565 570 575
 Gly His Glu His Phe Arg Asp Thr Pro Arg Pro Asp His Pro Pro His
 580 585 590

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Asp Gly His Ser Pro Ala Ser Arg Glu Arg Ser Ser Ser Leu Gln Gly
    595                                600                                605
Met Asp Met Ala Ser Leu Pro Pro Arg Lys Arg Pro Trp His Asp Gly
    610                                615                                620
Pro Gly Thr Ser Glu His Arg Glu Met Glu Ala Pro Gly Gly Pro Ser
    625                                630                                635                                640
Glu Asp Arg Gly Gly Lys Gly Arg Gly Gly Pro Gly Pro Ala Gln Arg
    645                                650                                655
Val Pro Lys Ser Gly Arg Ser Ser Ser Leu Asp Gly Glu His His Asp
    660                                665                                670
Gly Tyr His Arg Asp Glu Pro Phe Gly Gly Pro Pro Gly Ser Gly Thr
    675                                680                                685
Pro Ser Arg Gly Gly Arg Ser Gly Ser Asn Trp Gly Arg Gly Ser Asn
    690                                695                                700
Met Asn Ser Gly Pro Pro Arg Arg Gly Ala Phe Leu Gly Gly Gly Arg
    705                                710                                715                                720
Gly Pro Val Lys Pro Arg Thr Glu Phe Pro Glu Gly Val Phe Gly Gln
    725                                730                                735
Ile Val Arg Thr Phe Gly Gly Leu His Pro *
    740                                745 746

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<210> 1776
 <211> 254
 <212> PRT
 <213> Homo sapiens

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<400> 1776
Met Ala Ala Ala Arg Ala Thr Thr Pro Ala Asp Gly Glu Glu Pro Ala
  1      5      10      15
Pro Glu Ala Glu Ala Leu Ala Ala Ala Arg Glu Arg Ser Ser Arg Phe
    20      25      30
Leu Ser Gly Leu Glu Leu Val Lys Gln Gly Ala Glu Ala Arg Val Phe
    35      40      45
Arg Gly Arg Phe Gln Gly Arg Ala Ala Val Ile Lys His Arg Phe Pro
    50      55      60
Lys Gly Tyr Arg His Pro Ala Leu Glu Ala Arg Leu Gly Arg Arg Arg
    65      70      75      80
Thr Val Gln Glu Ala Arg Ala Leu Leu Arg Cys Arg Arg Ala Gly Ile
    85      90      95
Ser Ala Pro Val Val Phe Phe Val Asp Tyr Ala Ser Asn Cys Leu Tyr
    100     105     110
Met Glu Glu Ile Glu Gly Ser Val Thr Val Arg Asp Tyr Ile Gln Ser
    115     120     125
Thr Met Glu Thr Glu Lys Thr Pro Gln Gly Leu Ser Asn Leu Ala Lys
    130     135     140
Thr Ile Gly Gln Val Leu Ala Arg Met His Asp Glu Asp Leu Ile His
    145     150     155     160
Gly Asp Leu Thr Thr Ser Asn Met Leu Leu Lys Pro Pro Leu Glu Gln
    165     170     175
Leu Asn Ile Val Leu Ile Asp Phe Gly Leu Ser Phe Ile Ser Ala Leu
    180     185     190
Pro Glu Asp Lys Gly Val Asp Leu Tyr Val Leu Glu Lys Ala Phe Leu
    195     200     205
Ser Thr His Pro Asn Thr Glu Thr Val Phe Glu Ala Phe Leu Lys Ser
    210     215     220
Tyr Ser Thr Ser Ser Lys Lys Ala Arg Pro Val Leu Lys Lys Leu Asp
    225     230     235     240
Glu Val Arg Leu Arg Gly Arg Lys Arg Ser Met Val Gly *
    245     250     253

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<210> 1777
 <211> 394
 <212> PRT
 <213> Homo sapiens

<400> 1777
 Met Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala Cys Ser Pro
 1 5 10 15
 Val His Thr Thr Leu Ser Lys Ser Asp Ala Lys Lys Ala Ala Ser Lys
 20 25 30
 Thr Leu Leu Glu Lys Ser Gln Phe Ser Asp Lys Pro Val Gln Asp Arg
 35 40 45
 Gly Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val Val Leu Glu His
 50 55 60
 Arg Ser Tyr Cys Ser Ala Lys Ala Arg Asp Arg His Phe Ala Gly Asp
 65 70 75 80
 Val Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly Tyr Tyr Val Thr
 85 90 95
 Lys Val Phe Gly Ser Lys Phe Thr Gln Ile Ser Pro Val Trp Leu Gln
 100 105 110
 Leu Lys Arg Arg Gly Arg Glu Met Phe Glu Val Thr Gly Leu His Asp
 115 120 125
 Val Asp Gln Gly Trp Met Arg Ala Val Arg Lys His Ala Lys Gly Leu
 130 135 140
 His Ile Val Pro Arg Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe
 145 150 155 160
 Arg Asn Val Leu Tyr Ser Glu Asp Glu Ile Glu Glu Leu Ser Lys Thr
 165 170 175
 Val Val Gln Val Ala Lys Asn Gln His Phe Asp Gly Phe Val Val Glu
 180 185 190
 Val Trp Asn Gln Leu Leu Ser Gln Lys Arg Val Gly Leu Ile His Met
 195 200 205
 Leu Thr His Leu Ala Glu Ala Leu His Gln Ala Arg Leu Leu Ala Leu
 210 215 220
 Leu Val Ile Pro Pro Ala Ile Thr Pro Gly Thr Asp Gln Leu Gly Met
 225 230 235 240
 Phe Thr His Lys Glu Phe Glu Gln Leu Ala Pro Val Leu Asp Gly Phe
 245 250 255
 Ser Leu Met Thr Tyr Asp Tyr Ser Thr Ala His Gln Pro Gly Pro Asn
 260 265 270
 Ala Pro Leu Ser Trp Val Arg Ala Cys Val Gln Val Leu Asp Pro Lys
 275 280 285
 Ser Lys Trp Arg Ser Lys Ile Leu Leu Gly Leu Asn Phe Tyr Gly Met
 290 295 300
 Asp Tyr Ala Thr Ser Lys Asp Ala Arg Glu Pro Val Val Gly Ala Arg
 305 310 315 320
 Tyr Ile Gln Thr Leu Lys Asp His Arg Pro Arg Met Val Trp Asp Ser
 325 330 335
 Gln Ala Ser Glu His Phe Phe Glu Tyr Lys Lys Ser Arg Ser Gly Arg
 340 345 350
 His Val Val Phe Tyr Pro Thr Leu Lys Ser Leu Gln Val Arg Leu Glu
 355 360 365
 Leu Ala Arg Glu Leu Gly Val Gly Val Ser Ile Trp Glu Leu Gly Gln
 370 375 380
 Gly Leu Asp Tyr Phe Tyr Asp Leu Leu *
 385 390 393

<210> 1778
 <211> 413
 <212> PRT

<213> Homo sapiens

<400> 1778

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Met Gly Ser Thr Lys His Trp Gly Glu Trp Leu Leu Asn Leu Lys Val
 1          5          10          15
Ala Pro Ala Gly Val Phe Gly Val Ala Phe Leu Ala Arg Val Ala Leu
          20          25          30
Val Phe Tyr Gly Val Phe Gln Asp Arg Thr Leu His Val Arg Tyr Thr
          35          40          45
Asp Ile Asp Tyr Gln Val Phe Thr Asp Ala Ala Arg Phe Val Thr Glu
          50          55          60
Gly Arg Ser Pro Tyr Leu Arg Ala Thr Tyr Arg Tyr Thr Pro Leu Leu
          65          70          75          80
Gly Trp Leu Leu Thr Pro Asn Ile Tyr Leu Ser Glu Leu Phe Gly Lys
          85          90          95
Phe Leu Phe Ile Ser Cys Asp Leu Leu Thr Ala Phe Leu Leu Tyr Arg
          100          105          110
Leu Leu Leu Leu Lys Gly Leu Gly Arg Arg Gln Ala Cys Gly Tyr Cys
          115          120          125
Val Phe Trp Leu Leu Asn Pro Leu Pro Met Ala Val Ser Ser Arg Gly
          130          135          140
Asn Ala Asp Ser Ile Val Ala Ser Leu Val Leu Met Val Leu Tyr Leu
          145          150          155          160
Ile Lys Lys Arg Leu Val Ala Cys Ala Ala Val Phe Tyr Gly Phe Ala
          165          170          175
Val His Met Lys Ile Tyr Pro Glu Thr Tyr Ile Leu Pro Ile Thr Leu
          180          185          190
His Leu Leu Pro Asp Arg Asp Asn Asp Lys Ser Leu Arg Gln Phe Arg
          195          200          205
Thr Arg Leu Cys Asn Arg Thr Ala Leu Met Phe Val Ala Val Ala Gly
          210          215          220
Leu Thr Phe Phe Ala Leu Ser Phe Gly Phe Tyr Tyr Glu Tyr Gly Trp
          225          230          235          240
Glu Phe Leu Glu His Thr Tyr Phe Tyr His Leu Thr Arg Arg Asp Ile
          245          250          255
Arg His Asn Phe Ser Pro Tyr Phe Tyr Met Leu Tyr Leu Thr Ala Glu
          260          265          270
Ser Lys Trp Ser Phe Ser Leu Gly Ile Ala Ala Phe Leu Pro Gln Leu
          275          280          285
Ile Leu Leu Ser Ala Val Ser Phe Ala Tyr Tyr Arg Asp Leu Val Phe
          290          295          300
Cys Cys Phe Leu His Thr Ser Ile Phe Val Thr Phe Asn Lys Val Cys
          305          310          315          320
Thr Ser Gln Tyr Phe Leu Trp Tyr Leu Cys Leu Leu Pro Leu Val Met
          325          330          335
Pro Leu Val Arg Met Pro Trp Lys Arg Ala Val Val Leu Leu Met Leu
          340          345          350
Trp Phe Ile Gly Gln Ala Met Trp Leu Ala Pro Ala Tyr Val Leu Glu
          355          360          365
Phe Gln Gly Lys Asn Thr Phe Leu Phe Ile Trp Leu Ala Gly Leu Phe
          370          375          380
Phe Leu Leu Ile Asn Cys Ser Ile Leu Ile Gln Ile Ile Ser His Tyr
          385          390          395          400
Lys Glu Glu Pro Leu Thr Glu Arg Ile Lys Tyr Asp *
          405          410          412

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<210> 1779

<211> 869

<212> PRT

<213> Homo sapiens

<400> 1779

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Met Arg Gly Ala Ala Ser Ala Ser Val Arg Glu Pro Thr Pro Leu Pro
 1          5          10          15
Gly Arg Gly Ala Pro Arg Thr Lys Pro Arg Ala Gly Arg Gly Pro Thr
          20          25          30
Val Gly Thr Pro Ala Thr Leu Ala Leu Pro Ala Arg Gly Arg Pro Arg
          35          40          45
Ser Arg Asn Gly Leu Ala Ser Lys Gly Gln Arg Gly Ala Ala Pro Thr
 50          55          60
Gly Pro Gly His Arg Ala Leu Pro Ser Arg Asp Thr Ala Leu Pro Gln
 65          70          75          80
Glu Arg Asn Lys Lys Leu Glu Ala Val Gly Thr Gly Ile Glu Pro Lys
          85          90          95
Ala Met Ser Gln Gly Leu Val Thr Phe Gly Asp Val Ala Val Asp Phe
          100          105          110
Ser Gln Glu Glu Trp Glu Trp Leu Asn Pro Ile Gln Arg Asn Leu Tyr
          115          120          125
Arg Lys Val Met Leu Glu Asn Tyr Arg Asn Leu Ala Ser Leu Gly Leu
          130          135          140
Cys Val Ser Lys Pro Asp Val Ile Ser Ser Leu Glu Gln Gly Lys Glu
          145          150          155          160
Pro Trp Thr Val Lys Arg Lys Met Thr Arg Ala Trp Cys Pro Asp Leu
          165          170          175
Lys Ala Val Trp Lys Ile Lys Glu Leu Pro Leu Lys Lys Asp Phe Cys
          180          185          190
Glu Gly Lys Leu Ser Gln Ala Val Ile Thr Glu Arg Leu Thr Ser Tyr
          195          200          205
Asn Leu Glu Tyr Ser Leu Leu Gly Glu His Trp Asp Tyr Asp Ala Leu
          210          215          220
Phe Glu Thr Gln Pro Gly Leu Val Thr Ile Lys Asn Leu Ala Val Asp
          225          230          235          240
Phe Arg Gln Gln Leu His Pro Ala Gln Lys Asn Phe Cys Lys Asn Gly
          245          250          255
Ile Trp Glu Asn Asn Ser Asp Leu Gly Ser Ala Gly His Cys Val Ala
          260          265          270
Lys Pro Asp Leu Val Ser Leu Leu Glu Gln Glu Lys Glu Pro Trp Met
          275          280          285
Val Lys Arg Glu Leu Thr Gly Ser Leu Phe Ser Gly Gln Arg Ser Val
          290          295          300
His Glu Thr Gln Glu Leu Phe Pro Lys Gln Asp Ser Tyr Ala Glu Gly
          305          310          315          320
Val Thr Asp Arg Thr Ser Asn Thr Lys Leu Asp Cys Ser Ser Phe Arg
          325          330          335
Glu Asn Trp Asp Ser Asp Tyr Val Phe Gly Arg Lys Leu Ala Val Gly
          340          345          350
Gln Glu Thr Gln Phe Arg Gln Glu Pro Ile Thr His Asn Lys Thr Leu
          355          360          365
Ser Lys Glu Arg Glu Arg Thr Tyr Asn Lys Ser Gly Arg Trp Ser Tyr
          370          375          380
Leu Asp Asp Ser Glu Glu Lys Val His Asn Arg Asp Ser Ile Lys Asn
          385          390          395          400
Phe Gln Lys Ser Ser Val Val Ile Lys Gln Thr Gly Ile Tyr Ala Gly
          405          410          415
Lys Lys Leu Phe Lys Cys Asn Glu Cys Lys Lys Thr Phe Thr Gln Ser
          420          425          430
Ser Ser Leu Thr Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr
          435          440          445
Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Asp Gly Ser Ser Phe Ala
          450          455          460
Arg His Gln Arg Cys His Thr Gly Lys Lys Pro Tyr Glu Cys Ile Glu
          465          470          475          480
Cys Gly Lys Ala Phe Ile Gln Asn Thr Ser Leu Ile Arg His Trp Arg
          485          490          495

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Tyr Tyr His Thr Gly Glu Lys Pro Phe Asp Cys Ile Asp Cys Gly Lys
 500 505 510
 Ala Phe Ser Asp His Ile Gly Leu Asn Gln His Arg Arg Ile His Thr
 515 520 525
 Gly Glu Lys Pro Tyr Lys Cys Asp Val Cys His Lys Ser Phe Arg Tyr
 530 535 540
 Gly Ser Ser Leu Thr Val His Gln Arg Ile His Thr Gly Glu Lys Pro
 545 550 555 560
 Tyr Glu Cys Asp Val Cys Arg Lys Ala Phe Ser His His Ala Ser Leu
 565 570 575
 Thr Gln His Gln Arg Val His Ser Gly Glu Lys Pro Phe Lys Cys Lys
 580 585 590
 Glu Cys Gly Lys Ala Phe Arg Gln Asn Ile His Leu Ala Ser His Leu
 595 600 605
 Arg Ile His Thr Gly Glu Lys Pro Phe Glu Cys Ala Glu Cys Gly Lys
 610 615 620
 Ser Phe Ser Ile Ser Ser Gln Leu Ala Thr His Gln Arg Ile His Thr
 625 630 635 640
 Gly Glu Lys Pro Tyr Glu Cys Lys Val Cys Ser Lys Ala Phe Thr Gln
 645 650 655
 Lys Ala His Leu Ala Gln His Gln Lys Thr His Thr Gly Glu Lys Pro
 660 665 670
 Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ser Gln Thr Thr His Leu
 675 680 685
 Ile Gln His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Met
 690 695 700
 Glu Cys Gly Lys Ala Phe Gly Asp Asn Ser Ser Cys Thr Gln His Gln
 705 710 715 720
 Arg Leu His Thr Gly Gln Arg Pro Tyr Glu Cys Ile Glu Cys Gly Lys
 725 730 735
 Ala Phe Lys Thr Lys Ser Ser Leu Ile Cys His Arg Arg Ser His Thr
 740 745 750
 Gly Glu Lys Pro Tyr Glu Cys Ser Val Cys Gly Lys Ala Phe Ser His
 755 760 765
 Arg Gln Ser Leu Ser Val His Gln Arg Ile His Ser Gly Lys Lys Pro
 770 775 780
 Tyr Glu Cys Lys Glu Cys Arg Lys Thr Phe Ile Gln Ile Gly His Leu
 785 790 795 800
 Asn Gln His Lys Arg Val His Thr Gly Glu Arg Ser Tyr Asn Tyr Lys
 805 810 815
 Lys Ser Arg Lys Val Phe Arg Gln Thr Ala His Leu Ala His His Gln
 820 825 830
 Arg Ile His Thr Gly Glu Ser Ser Thr Cys Pro Ser Leu Pro Ser Thr
 835 840 845
 Ser Asn Pro Val Asp Leu Phe Pro Lys Phe Leu Trp Asn Pro Ser Ser
 850 855 860
 Leu Pro Ser Pro *
 865 868

<210> 1780

<211> 278

<212> PRT

<213> Homo sapiens

<400> 1780

Met Gln His Leu Asp Cys Asp Leu Trp Leu Gln Leu Glu Leu Ser Ser
 1 5 10 15
 Gln Cys Val Leu Leu Gly Asn Gly Val Ala Met Asn Leu His Val Lys
 20 25 30
 Thr Leu Ser Leu Met Thr Trp Arg Ser Arg Phe Leu Glu Glu Ser Phe
 35 40 45

Trp Ser Leu Glu Glu Thr Ala Ala Leu Ala Lys Gln Leu Pro Leu Lys
 50 55 60
 Ser Pro Ser Glu Asn Ile Phe Leu His Ile Val Asp Leu Ser Asp Pro
 65 70 75 80
 Lys Gln Ile Trp Lys Phe Val Glu Asn Phe Lys Gln Glu His Lys Leu
 85 90 95
 His Val Leu Ile Asn Asn Ala Gly Cys Met Val Asn Lys Arg Glu Leu
 100 105 110
 Thr Glu Asp Gly Leu Glu Lys Asn Phe Ala Ala Asn Thr Leu Gly Val
 115 120 125
 Tyr Ile Leu Thr Thr Gly Leu Ile Pro Val Leu Glu Lys Glu His Asp
 130 135 140
 Pro Arg Val Ile Thr Val Ser Ser Gly Gly Met Leu Val Gln Lys Leu
 145 150 155 160
 Asn Thr Asn Asp Leu Gln Ser Glu Arg Thr Pro Phe Asp Gly Thr Met
 165 170 175
 Val Tyr Ala Gln Asn Lys Arg Gln Gln Val Val Leu Thr Glu Arg Trp
 180 185 190
 Ala Gln Gly His Pro Ala Ile His Phe Ser Ser Met His Pro Gly Trp
 195 200 205
 Ala Asp Thr Pro Gly Val Arg Gln Ala Met Pro Gly Phe His Ala Arg
 210 215 220
 Phe Arg Asp Arg Leu Arg Ser Glu Ala Gln Gly Ala Asp Thr Met Leu
 225 230 235 240
 Trp Leu Ala Leu Ser Ser Ala Ala Ala Ala Gln Pro Ser Gly Arg Ser
 245 250 255
 Arg Val Ser Leu Glu Gly Pro Lys Leu Thr Arg Thr Gln Leu Ser Cys
 260 265 270
 Thr Lys Trp Ser Leu *
 275 277

<210> 1781

<211> 199

<212> PRT

<213> Homo sapiens

<400> 1781

Met Leu Glu Met Asn Met Ala Ile Ala Phe Pro Ala Ala Pro Leu Leu
 1 5 10 15
 Thr Val Ile Leu Ala Leu Val Gly Met Glu Ala Ile Met Ser Glu Phe
 20 25 30
 Phe Asn Asp Thr Thr Thr Ala Phe Tyr Ile Ile Leu Ile Val Trp Leu
 35 40 45
 Ala Asp Gln Tyr Asp Ala Ile Cys Cys His Thr Ser Thr Ser Lys Arg
 50 55 60
 His Trp Leu Arg Phe Phe Tyr Leu Tyr His Phe Ala Phe Tyr Ala Tyr
 65 70 75 80
 His Tyr Arg Phe Asn Gly Gln Tyr Ser Ser Leu Ala Leu Val Thr Ser
 85 90 95
 Trp Leu Phe Ile Gln His Ser Met Ile Tyr Phe Phe His His Tyr Glu
 100 105 110
 Leu Pro Ala Ile Leu Gln Gln Val Arg Ile Gln Glu Met Leu Leu Gln
 115 120 125
 Ala Pro Thr Leu Gly Pro Gly Thr Pro Thr Ala Leu Pro Asp Asp Met
 130 135 140
 Asn Asn Asn Ser Gly Ala Pro Ala Thr Ala Pro Asp Ser Ala Gly Gln
 145 150 155 160
 Pro Pro Ala Leu Gly Pro Val Ser Pro Gly Gly Gln Arg Glu Ser Arg
 165 170 175
 Ala Cys Gly Ser Gly Ala Gln Leu Pro Gly Gly Arg Gly Ser Leu Ser
 180 185 190

Gly Ser Ser Cys Arg Trp *
195 198

<210> 1782
<211> 1456
<212> PRT
<213> Homo sapiens

<400> 1782
Met Arg Leu Thr Arg His Glu Gln Ser Ala Pro Ala Leu Gly Gly Thr
1 5 10 15
Pro Glu Gln Thr Pro Gly Gln Gln Ser Pro Glu Asn Asp Asn Thr Ile
20 25 30
Lys Asp Leu Leu Pro Glu Asp Ala Gly Ile Asp His Gln Thr Val His
35 40 45
Gln Leu Ile Thr Val Leu Met Lys Phe Met Ala Lys Asp Glu Ser Ser
50 55 60
Ala Glu Ser Asp Ile Ser Ser Ala Lys Ala Phe Asn Thr Val Lys Arg
65 70 75 80
His Leu Tyr Val Leu Leu Gly Tyr Asp Gln Gln Glu Gly Cys Phe Met
85 90 95
Ile Ala Pro Gln Lys Met Arg Leu Ser Thr Cys Phe Asn Ala Phe Ile
100 105 110
Ala Gly Ile Ala Gln Val Met Asp Tyr Asn Ile Asn Leu Gly Lys His
115 120 125
Leu Leu Pro Leu Val Val Gln Val Leu Lys Tyr Cys Ser Cys Pro Gln
130 135 140
Leu Arg His Tyr Phe Gln Gln Pro Pro Arg Cys Ser Leu Trp Ser Leu
145 150 155 160
Lys Pro His Ile Arg Gln Met Trp Leu Lys Ala Leu Leu Val Ile Leu
165 170 175
Tyr Lys Tyr Pro Tyr Arg Asp Cys Asp Ile Ser Lys Ile Leu Leu His
180 185 190
Leu Ile His Ile Thr Val Asn Thr Leu Asn Ala Gln Tyr His Ser Cys
195 200 205
Lys Pro His Ala Thr Ala Gly Pro Leu Tyr Ser Asp Asn Ser Asn Ile
210 215 220
Ser Arg Tyr Ser Glu Lys Glu Lys Glu Glu Asp Ser Val Phe Asp Glu
225 230 235 240
Ser Asp Ile His Asp Thr Pro Thr Gly Pro Cys Asn Lys Glu Ser Gln
245 250 255
Thr Phe Phe Ala Arg Leu Lys Arg Ile Gly Gly Ser Lys Met Val Lys
260 265 270
Tyr Gln Pro Val Glu Met Asn Val Gln Arg Ser Glu Ile Glu Leu Ala
275 280 285
Glu Tyr Arg Glu Thr Gly Ala Leu Gln Asp Ser Leu Leu His Cys Val
290 295 300
Arg Glu Glu Ser Ile Pro Lys Lys Lys Leu Arg Ser Phe Lys Gln Lys
305 310 315 320
Ser Leu Asp Ile Gly Asn Ala Asp Ser Leu Leu Phe Thr Leu Asp Glu
325 330 335
His Arg Arg Lys Ser Cys Ile Asp Arg Cys Asp Ile Glu Lys Pro Pro
340 345 350
Thr Gln Ala Ala Tyr Ile Ala Gln Arg Pro Asn Asp Pro Gly Arg Ser
355 360 365
Arg Gln Asn Ser Ala Thr Arg Pro Asp Asn Ser Glu Ile Pro Glu Asn
370 375 380
Pro Ala Met Glu Gly Phe Pro Asp Ala Arg Arg Pro Val Ile Pro Glu
385 390 395 400
Val Arg Leu Asn Cys Met Glu Thr Phe Glu Val Lys Val Asp Ser Pro
405 410 415

Val	Lys	Pro	Ala	Pro	Lys	Glu	Asp	Leu	Asp	Leu	Ile	Asp	Leu	Ser	Ser		
			420						425					430			
Asp	Ser	Thr	Ser	Gly	Pro	Glu	Lys	His	Ser	Ile	Leu	Ser	Thr	Ser	Asp		
			435				440						445				
Ser	Asp	Ser	Leu	Val	Phe	Glu	Pro	Leu	Pro	Pro	Leu	Arg	Ile	Val	Glu		
			450			455					460						
Ser	Asp	Glu	Glu	Glu	Glu	Thr	Met	Asn	Gln	Gly	Asp	Asp	Gly	Pro	Ser		
			465			470				475				480			
Gly	Lys	Asn	Ala	Ala	Ser	Ser	Pro	Ser	Ile	Pro	Ser	His	Pro	Ser	Val		
			485						490					495			
Leu	Ser	Leu	Ser	Thr	Ala	Pro	Leu	Val	Gln	Val	Ser	Val	Glu	Asp	Cys		
			500					505					510				
Ser	Lys	Asp	Phe	Ser	Ser	Lys	Asp	Ser	Gly	Asn	Asn	Gln	Ser	Ala	Gly		
			515				520					525					
Asn	Thr	Asp	Ser	Ala	Leu	Ile	Thr	Leu	Glu	Asp	Pro	Met	Asp	Ala	Glu		
			530			535					540						
Gly	Ser	Ser	Lys	Pro	Glu	Glu	Leu	Pro	Glu	Phe	Ser	Cys	Gly	Ser	Pro		
			545		550					555				560			
Leu	Thr	Leu	Lys	Gln	Lys	Arg	Asp	Leu	Leu	Gln	Lys	Ser	Phe	Ala	Leu		
			565					570						575			
Pro	Glu	Met	Ser	Leu	Asp	Asp	His	Pro	Asp	Pro	Gly	Thr	Glu	Gly	Glu		
			580					585					590				
Lys	Pro	Gly	Glu	Leu	Met	Pro	Ser	Ser	Gly	Ala	Lys	Thr	Val	Leu	Leu		
			595			600						605					
Lys	Val	Pro	Glu	Asp	Ala	Glu	Asn	Pro	Thr	Glu	Ser	Glu	Lys	Pro	Asp		
			610			615						620					
Thr	Ser	Ala	Glu	Ser	Asp	Thr	Glu	Gln	Asn	Pro	Glu	Arg	Lys	Val	Glu		
			625		630					635				640			
Glu	Asp	Gly	Ala	Glu	Glu	Ser	Glu	Phe	Lys	Ile	Gln	Ile	Val	Pro	Arg		
			645					650						655			
Gln	Arg	Lys	Gln	Arg	Lys	Ile	Ala	Val	Ser	Ala	Ile	Gln	Arg	Glu	Tyr		
			660					665						670			
Leu	Asp	Ile	Ser	Phe	Asn	Ile	Leu	Asp	Lys	Leu	Gly	Glu	Gln	Lys	Asp		
			675			680						685					
Pro	Asp	Pro	Ser	Thr	Lys	Gly	Leu	Ser	Thr	Leu	Glu	Met	Pro	Arg	Glu		
			690			695					700						
Ser	Ser	Ser	Ala	Pro	Thr	Leu	Asp	Ala	Gly	Val	Pro	Glu	Thr	Ser	Ser		
			705		710					715				720			
His	Ser	Ser	Ile	Ser	Thr	Gln	Tyr	Arg	Gln	Met	Lys	Arg	Gly	Ser	Leu		
			725						730					735			
Gly	Val	Leu	Thr	Met	Ser	Gln	Leu	Met	Lys	Arg	Gln	Leu	Glu	His	Gln		
			740					745					750				
Ser	Ser	Ala	Pro	His	Asn	Ile	Ser	Asn	Trp	Asp	Thr	Glu	Gln	Ile	Gln		
			755			760						765					
Pro	Gly	Lys	Arg	Gln	Cys	Asn	Val	Pro	Thr	Cys	Leu	Asn	Pro	Asp	Leu		
			770			775						780					
Glu	Gly	Gln	Pro	Leu	Arg	Met	Arg	Gly	Ala	Thr	Lys	Ser	Ser	Leu	Leu		
			785		790					795				800			
Ser	Ala	Pro	Ser	Ile	Val	Ser	Met	Phe	Val	Pro	Ala	Pro	Glu	Glu	Phe		
			805					810						815			
Thr	Asp	Glu	Gln	Pro	Thr	Val	Met	Thr	Asp	Lys	Cys	His	Asp	Cys	Gly		
			820					825						830			
Ala	Ile	Leu	Glu	Glu	Tyr	Asp	Glu	Glu	Thr	Leu	Gly	Leu	Ala	Ile	Val		
			835				840					845					
Val	Leu	Ser	Thr	Phe	Ile	His	Leu	Ser	Pro	Asp	Leu	Ala	Ala	Pro	Leu		
			850			855					860						
Leu	Leu	Asp	Ile	Met	Gln	Ser	Val	Gly	Arg	Leu	Ala	Ser	Ser	Thr	Thr		
			865		870				875					880			
Phe	Ser	Asn	Gln	Ala	Glu	Ser	Met	Met	Val	Pro	Gly	Asn	Ala	Ala	Gly		
			885					890						895			
Val	Ala	Lys	Gln	Phe	Leu	Arg	Cys	Ile	Phe	His	Gln	Leu	Ala	Pro	Asn		
			900					905					910				
Gly	Ile	Phe	Pro	Gln	Leu	Phe	Gln	Ser	Thr	Ile	Lys	Asp	Gly	Thr	Phe		
			915				920						925				

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Leu Arg Thr Leu Ala Ser Ser Leu Met Asp Phe Asn Glu Leu Ser Ser
 930          935          940
Ile Ala Ala Leu Ser Gln Leu Leu Glu Gly Leu Asn Asn Lys Lys Asn
 945          950          955          960
Leu Pro Ala Gly Gly Ala Met Ile Arg Cys Leu Glu Asn Ile Ala Thr
          965          970          975
Phe Met Glu Ala Leu Pro Met Asp Ser Pro Ser Ser Leu Trp Thr Thr
          980          985          990
Ile Ser Asn Gln Phe Gln Thr Phe Ala Lys Leu Pro Cys Val Leu
          995          1000          1005
Pro Leu Lys Cys Ser Leu Asp Ser Ser Leu Arg Ile Met Ile Cys Leu
 1010          1015          1020
Leu Lys Ile Pro Ser Thr Asn Ala Thr Arg Ser Leu Leu Glu Pro Phe
1025          1030          1035          1040
Ser Lys Leu Leu Ser Phe Val Ile Gln Asn Ala Val Phe Thr Leu Ala
          1045          1050          1055
Tyr Leu Val Glu Leu Cys Gly Leu Cys Tyr Arg Ala Phe Thr Lys Glu
          1060          1065          1070
Arg Asp Lys Phe Tyr Leu Ser Arg Ser Val Val Leu Glu Leu Leu Gln
          1075          1080          1085
Ala Leu Lys Leu Lys Ser Pro Leu Pro Asp Thr Asn Leu Leu Leu Leu
          1090          1095          1100
Val Gln Phe Ile Cys Ala Asp Ala Gly Thr Lys Leu Ala Glu Ser Thr
1105          1110          1115          1120
Ile Leu Ser Lys Gln Met Ile Ala Ser Val Pro Gly Cys Gly Thr Ala
          1125          1130          1135
Ala Met Glu Cys Val Arg Gln Tyr Ile Asn Glu Val Leu Asp Phe Met
          1140          1145          1150
Ala Asp Met His Thr Leu Thr Lys Leu Lys Ser His Met Lys Thr Cys
          1155          1160          1165
Ser Gln Pro Leu His Glu Asp Thr Phe Gly Gly His Leu Lys Val Gly
          1170          1175          1180
Leu Ala Gln Ile Ala Ala Met Asp Ile Ser Arg Gly Asn His Arg Asp
1185          1190          1195          1200
Asn Lys Ala Val Ile Arg Tyr Leu Pro Trp Leu Tyr His Pro Pro Ser
          1205          1210          1215
Ala Met Gln Gln Gly Pro Lys Glu Phe Ile Glu Cys Val Ser His Ile
          1220          1225          1230
Arg Leu Leu Ser Trp Leu Leu Leu Gly Ser Leu Thr His Asn Ala Val
          1235          1240          1245
Cys Pro Asn Ala Ser Ser Pro Cys Leu Pro Ile Pro Leu Asp Ala Gly
          1250          1255          1260
Ser His Val Ala Asp His Leu Ile Val Ile Leu Ile Gly Phe Pro Glu
1265          1270          1275          1280
Gln Ser Lys Thr Ser Val Leu His Met Cys Ser Leu Phe His Ala Phe
          1285          1290          1295
Ile Phe Ala Gln Leu Trp Thr Val Tyr Cys Glu Gln Ser Ala Val Ala
          1300          1305          1310
Thr Asn Leu Gln Asn Gln Asn Glu Phe Ser Phe Thr Ala Ile Leu Thr
          1315          1320          1325
Ala Leu Glu Phe Trp Ser Arg Val Thr Pro Ser Ile Leu Gln Leu Met
          1330          1335          1340
Ala His Asn Lys Val Met Val Glu Met Val Cys Leu His Val Ile Ser
1345          1350          1355          1360
Leu Met Glu Ala Leu Gln Glu Cys Asn Ser Thr Ile Phe Val Lys Leu
          1365          1370          1375
Ile Pro Met Trp Leu Pro Met Ile Gln Ser Asn Ile Lys His Leu Ser
          1380          1385          1390
Ala Gly Leu Gln Leu Arg Leu Gln Ala Ile Gln Asn His Val Asn His
          1395          1400          1405
His Ser Leu Arg Thr Leu Pro Gly Ser Gly Gln Ser Ser Ala Gly Leu
          1410          1415          1420
Ala Ala Leu Arg Lys Trp Leu Gln Cys Thr Gln Phe Lys Met Ala Gln
1425          1430          1435          1440

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Val Glu Ile Gln Ser Ser Glu Ala Ala Ser Gln Phe Tyr Pro Leu *
 1445 1450 1455

<210> 1783
 <211> 426
 <212> PRT
 <213> Homo sapiens

<400> 1783
 Met Ala Thr Ala Glu Val Leu Asn Ile Gly Lys Lys Leu Tyr Glu Gly
 1 5 10 15
 Lys Thr Lys Glu Val Tyr Glu Leu Leu Asp Ser Pro Gly Lys Val Leu
 20 25 30
 Leu Gln Ser Lys Asp Gln Ile Thr Ala Gly Asn Ala Ala Arg Lys Asn
 35 40 45
 His Leu Glu Gly Lys Ala Ala Ile Ser Asn Lys Ile Thr Ser Cys Ile
 50 55 60
 Phe Gln Leu Leu Gln Glu Ala Gly Ile Lys Thr Ala Phe Thr Arg Lys
 65 70 75 80
 Cys Gly Glu Thr Ala Phe Ile Ala Pro Gln Cys Glu Met Ile Pro Ile
 85 90 95
 Glu Trp Val Cys Arg Arg Ile Ala Thr Gly Ser Phe Leu Lys Arg Asn
 100 105 110
 Pro Gly Val Lys Glu Gly Tyr Lys Phe Tyr Pro Pro Lys Val Glu Leu
 115 120 125
 Phe Phe Lys Asp Asp Ala Asn Asn Asp Pro Gln Trp Ser Glu Glu Gln
 130 135 140
 Leu Ile Ala Ala Lys Phe Cys Phe Ala Gly Leu Leu Ile Gly Gln Thr
 145 150 155 160
 Glu Val Asp Ile Met Ser His Ala Thr Gln Ala Ile Phe Glu Ile Leu
 165 170 175
 Glu Lys Ser Trp Leu Pro Gln Asn Cys Thr Leu Val Asp Met Lys Ile
 180 185 190
 Glu Phe Gly Val Asp Val Thr Thr Lys Glu Ile Val Leu Ala Asp Val
 195 200 205
 Ile Asp Asn Asp Ser Trp Arg Leu Trp Pro Ser Gly Asp Arg Ser Gln
 210 215 220
 Gln Lys Asp Lys Gln Ser Tyr Arg Asp Leu Lys Glu Val Thr Pro Glu
 225 230 235 240
 Gly Leu Gln Met Val Lys Lys Asn Phe Glu Trp Val Ala Glu Arg Val
 245 250 255
 Glu Leu Leu Leu Lys Ser Glu Ser Gln Cys Arg Val Val Val Leu Met
 260 265 270
 Gly Ser Thr Ser Asp Leu Gly His Cys Glu Lys Ile Lys Lys Ala Cys
 275 280 285
 Gly Asn Phe Gly Ile Pro Cys Glu Leu Arg Val Thr Ser Ala His Lys
 290 295 300
 Gly Pro Asp Glu Thr Leu Arg Ile Lys Ala Glu Tyr Glu Gly Asp Gly
 305 310 315 320
 Ile Pro Thr Val Phe Val Ala Val Ala Gly Arg Ser Asn Gly Leu Gly
 325 330 335
 Pro Val Met Ser Gly Asn Thr Ala Tyr Pro Val Ile Ser Cys Pro Pro
 340 345 350
 Leu Thr Pro Asp Trp Gly Val Gln Asp Val Trp Ser Ser Leu Arg Leu
 355 360 365
 Pro Ser Gly Leu Gly Cys Ser Thr Val Leu Ser Pro Glu Gly Ser Ala
 370 375 380
 Gln Phe Ala Ala Gln Ile Phe Gly Leu Ser Asn His Leu Val Trp Ser
 385 390 395 400
 Lys Leu Arg Ala Ser Ile Leu Asn Thr Trp Ile Ser Leu Lys Gln Ala
 405 410 415

Asp Lys Lys Ile Arg Glu Cys Asn Leu *
 420 425

<210> 1784
 <211> 367
 <212> PRT
 <213> Homo sapiens

<400> 1784
 Met Pro Met Ile Ser Val Leu Gly Lys Met Phe Leu Trp Gln Arg Glu
 1 5 10 15
 Gly Pro Gly Gly Arg Trp Thr Cys Gln Thr Ser Arg Arg Val Ser Ser
 20 25 30
 Asp Pro Ala Trp Ala Val Glu Trp Ile Glu Leu Pro Arg Gly Leu Ser
 35 40 45
 Leu Ser Ser Leu Gly Ser Ala Arg Thr Leu Arg Gly Trp Ser Arg Ser
 50 55 60
 Ser Arg Pro Ser Ser Val Asp Ser Gln Asp Leu Pro Glu Val Asn Val
 65 70 75 80
 Gly Asp Thr Val Ala Met Leu Pro Lys Ser Arg Arg Ala Leu Thr Ile
 85 90 95
 Gln Glu Ile Ala Leu Ala Arg Ser Ser Leu His Gly Ile Ser Gln
 100 105 110
 Val Val Lys Asp His Val Thr Lys Pro Thr Ala Met Ala Gln Gly Arg
 115 120 125
 Val Ala His Leu Ile Glu Trp Lys Gly Trp Ser Lys Pro Ser Asp Ser
 130 135 140
 Pro Ala Ala Leu Glu Ser Ala Phe Ser Ser Tyr Ser Asp Leu Ser Glu
 145 150 155 160
 Gly Glu Gln Glu Ala Arg Phe Ala Ala Gly Val Ala Glu Gln Phe Ala
 165 170 175
 Ile Ala Glu Ala Lys Leu Arg Ala Trp Ser Ser Val Asp Gly Glu Asp
 180 185 190
 Ser Thr Asp Asp Ser Tyr Asp Glu Asp Phe Ala Gly Gly Met Asp Thr
 195 200 205
 Asp Met Ala Gly Gln Leu Pro Leu Gly Pro His Leu Gln Asp Leu Phe
 210 215 220
 Thr Gly His Arg Phe Ser Arg Pro Val Arg Gln Gly Ser Val Glu Pro
 225 230 235 240
 Glu Ser Asp Cys Ser Gln Thr Val Ser Pro Asp Thr Leu Cys Ser Ser
 245 250 255
 Leu Cys Ser Leu Glu Asp Gly Leu Leu Gly Ser Pro Ala Arg Leu Ala
 260 265 270
 Ser Gln Leu Leu Gly Asp Glu Leu Leu Leu Ala Lys Leu Pro Pro Ser
 275 280 285
 Arg Glu Ser Ala Phe Arg Ser Leu Gly Pro Leu Glu Ala Gln Asp Ser
 290 295 300
 Leu Tyr Asn Ser Pro Leu Thr Glu Ser Cys Leu Ser Pro Ala Glu Glu
 305 310 315 320
 Glu Pro Ala Pro Cys Lys Asp Cys Gln Pro Leu Cys Pro Pro Leu Thr
 325 330 335
 Gly Ser Trp Glu Arg Gln Arg Gln Ala Ser Asp Leu Ala Ser Ser Gly
 340 345 350
 Val Val Ser Leu Asp Glu Asp Glu Ala Glu Pro Glu Glu Gln *
 355 360 365 366

<210> 1785
 <211> 629
 <212> PRT

<213> Homo sapiens

<400> 1785

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Met Ser Pro Gly Gly Lys Phe Asp Phe Asp Asp Gly Gly Cys Tyr Val
 1          5          10          15
Gly Gly Trp Glu Ala Gly Arg Ala His Gly Tyr Gly Val Cys Thr Gly
 20          25          30
Pro Gly Ala Gln Gly Glu Tyr Ser Gly Cys Trp Ala His Gly Phe Glu
 35          40          45
Ser Leu Gly Val Phe Thr Gly Pro Gly Gly His Ser Tyr Gln Gly His
 50          55          60
Trp Gln Gln Gly Lys Arg Glu Gly Leu Gly Val Glu Arg Lys Ser Arg
 65          70          75          80
Trp Thr Tyr Arg Gly Glu Trp Leu Gly Gly Leu Lys Gly Arg Ser Gly
 85          90          95
Val Trp Glu Ser Val Ser Gly Leu Arg Tyr Ala Gly Leu Trp Lys Asp
 100          105          110
Gly Phe Gln Asp Gly Tyr Gly Thr Glu Thr Tyr Ser Asp Gly Gly Thr
 115          120          125
Tyr Gln Gly Gln Trp Gln Ala Gly Lys Arg His Gly Tyr Gly Val Arg
 130          135          140
Gln Ser Val Pro Tyr His Gln Ala Ala Leu Leu Arg Ser Pro Arg Arg
 145          150          155          160
Thr Ser Leu Asp Ser Gly His Ser Asp Pro Pro Thr Pro Pro Pro Pro
 165          170          175
Leu Pro Leu Pro Gly Asp Glu Gly Gly Ser Pro Ala Ser Gly Ser Arg
 180          185          190
Gly Gly Phe Val Leu Ala Gly Pro Gly Asp Ala Asp Gly Ala Ser Ser
 195          200          205
Arg Lys Arg Thr Pro Ala Ala Gly Gly Phe Phe Arg Arg Ser Leu Leu
 210          215          220
Leu Ser Gly Leu Arg Ala Gly Gly Arg Arg Ser Ser Leu Gly Ser Lys
 225          230          235          240
Arg Gly Ser Leu Arg Ser Glu Val Ser Ser Glu Val Gly Ser Thr Gly
 245          250          255
Pro Pro Gly Ser Glu Ala Ser Gly Pro Pro Ala Ala Ala Pro Pro Ala
 260          265          270
Leu Ile Glu Gly Ser Ala Thr Glu Val Tyr Ala Gly Glu Trp Arg Ala
 275          280          285
Asp Arg Arg Ser Gly Phe Gly Val Ser Gln Arg Ser Asn Gly Leu Arg
 290          295          300
Tyr Glu Gly Glu Trp Leu Gly Asn Arg Arg His Gly Tyr Gly Arg Thr
 305          310          315          320
Thr Arg Pro Asp Gly Ser Arg Glu Glu Gly Lys Tyr Lys Arg Asn Arg
 325          330          335
Leu Val His Gly Gly Arg Val Arg Ser Leu Leu Pro Leu Ala Leu Arg
 340          345          350
Arg Gly Lys Val Lys Glu Lys Val Asp Arg Ala Val Glu Gly Ala Arg
 355          360          365
Arg Ala Val Ser Ala Ala Arg Gln Arg Gln Glu Ile Ala Ala Ala Arg
 370          375          380
Ala Ala Asp Ala Leu Leu Lys Ala Val Ala Ala Ser Ser Val Ala Glu
 385          390          395          400
Lys Ala Val Glu Ala Ala Arg Met Ala Lys Leu Ile Ala Gln Asp Leu
 405          410          415
Gln Pro Met Leu Glu Ala Pro Gly Arg Arg Pro Arg Gln Asp Ser Glu
 420          425          430
Gly Ser Asp Thr Glu Pro Leu Asp Glu Asp Ser Pro Gly Val Tyr Glu
 435          440          445
Asn Gly Leu Thr Pro Ser Glu Gly Ser Pro Glu Leu Pro Ser Ser Pro
 450          455          460
Ala Ser Ser Arg Gln Pro Trp Arg Pro Pro Ala Cys Arg Ser Pro Leu
 465          470          475          480

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Pro Pro Gly Gly Asp Gln Gly Pro Phe Ser Ser Pro Lys Ala Trp Pro
 485 490 495
 Glu Glu Trp Gly Gly Ala Gly Ala Gln Ala Glu Glu Leu Ala Gly Tyr
 500 505 510
 Glu Ala Glu Asp Glu Ala Gly Met Gln Gly Pro Gly Pro Arg Asp Gly
 515 520 525
 Ser Pro Leu Leu Gly Gly Cys Ser Asp Ser Ser Gly Ser Leu Arg Glu
 530 535 540
 Glu Glu Gly Glu Asp Glu Glu Pro Leu Pro Pro Leu Arg Ala Pro Ala
 545 550 555 560
 Gly Thr Glu Pro Glu Pro Ile Ala Met Leu Val Leu Arg Gly Ser Ser
 565 570 575
 Ser Arg Gly Pro Asp Ala Gly Cys Leu Thr Glu Glu Leu Gly Glu Pro
 580 585 590
 Ala Ala Thr Glu Arg Pro Ala Gln Pro Gly Ala Ala Asn Pro Leu Val
 595 600 605
 Val Gly Ala Val Ala Leu Leu Asp Leu Ser Leu Ala Phe Leu Phe Ser
 610 615 620
 Gln Leu Leu Thr *
 625 628

<210> 1786
 <211> 1119
 <212> PRT
 <213> Homo sapiens

<400> 1786
 Met Ser Thr Ala Ala Phe His Ile Ser Ser Leu Leu Glu Lys Met Thr
 1 5 10 15
 Ser Ser Asp Lys Asp Phe Arg Phe Met Ala Thr Ser Asp Leu Met Ser
 20 25 30
 Glu Leu Gln Lys Asp Ser Ile Gln Leu Asp Glu Asp Ser Glu Arg Lys
 35 40 45
 Val Val Lys Met Leu Leu Arg Leu Leu Glu Asp Lys Asn Gly Glu Val
 50 55 60
 Gln Asn Leu Ala Val Lys Trp Leu Gly Val Pro Leu Gly Ala Phe His
 65 70 75 80
 Ala Ser Leu Leu His Cys Leu Leu Pro Gln Leu Ser Ser Pro Arg Leu
 85 90 95
 Ala Val Arg Lys Arg Ala Val Gly Ala Leu Gly His Leu Ala Ala Ala
 100 105 110
 Cys Ser Thr Asp Leu Phe Val Glu Leu Ala Asp His Leu Leu Asp Arg
 115 120 125
 Leu Pro Gly Pro Arg Val Pro Thr Ser Pro Thr Ala Ile Arg Thr Leu
 130 135 140
 Ile Gln Cys Leu Gly Ser Val Gly Arg Gln Ala Gly His Arg Leu Gly
 145 150 155 160
 Ala His Leu Asp Arg Leu Val Pro Leu Val Glu Asp Phe Cys Asn Leu
 165 170 175
 Asp Asp Asp Glu Leu Arg Glu Ser Cys Leu Gln Ala Phe Glu Ala Phe
 180 185 190
 Leu Arg Lys Cys Pro Lys Glu Met Gly Pro His Val Pro Asn Val Thr
 195 200 205
 Ser Leu Cys Leu Gln Tyr Ile Lys His Asp Pro Asn Tyr Asn Tyr Asp
 210 215 220
 Ser Asp Glu Asp Glu Glu Met Glu Thr Glu Asp Ser Glu Phe Ser
 225 230 235 240
 Glu Gln Glu Ser Glu Asp Glu Tyr Ser Asp Asp Asp Met Ser Trp
 245 250 255
 Lys Val Arg Arg Ala Ala Ala Lys Cys Ile Ala Ala Leu Ile Ser Ser
 260 265 270

Arg	Pro	Asp	Leu	Leu	Pro	Asp	Phe	His	Cys	Thr	Leu	Ala	Pro	Val	Leu
		275					280					285			
Ile	Arg	Arg	Phe	Lys	Glu	Arg	Glu	Glu	Asn	Val	Lys	Ala	Asp	Val	Phe
	290					295					300				
Thr	Ala	Tyr	Ile	Val	Leu	Leu	Arg	Gln	Thr	Arg	Pro	Pro	Lys	Gly	Trp
305					310					315					320
Leu	Glu	Ala	Met	Glu	Glu	Pro	Thr	Gln	Thr	Gly	Ser	Asn	Leu	His	Met
				325					330					335	
Leu	Arg	Gly	Gln	Val	Pro	Leu	Val	Val	Lys	Ala	Leu	Gln	Arg	Gln	Leu
		340						345					350		
Lys	Asp	Arg	Ser	Val	Arg	Ala	Arg	Gln	Gly	Cys	Phe	Ser	Leu	Leu	Thr
	355						360					365			
Glu	Leu	Ala	Gly	Val	Leu	Pro	Gly	Ser	Leu	Ala	Glu	His	Met	Pro	Val
	370					375					380				
Leu	Val	Ser	Gly	Ile	Ile	Phe	Ser	Leu	Ala	Asp	Arg	Ser	Ser	Ser	Ser
385					390					395					400
Thr	Ile	Arg	Met	Asp	Ala	Leu	Ala	Phe	Leu	Gln	Gly	Leu	Leu	Gly	Thr
				405					410					415	
Glu	Pro	Ala	Glu	Ala	Phe	His	Pro	His	Leu	Pro	Ile	Leu	Leu	Pro	Pro
			420					425					430		
Val	Met	Ala	Cys	Val	Ala	Asp	Ser	Phe	Tyr	Lys	Ile	Ala	Ala	Glu	Ala
	435						440					445			
Leu	Val	Val	Leu	Gln	Glu	Leu	Val	Arg	Ala	Leu	Trp	Pro	Leu	His	Arg
	450					455					460				
Pro	Arg	Met	Leu	Asp	Pro	Glu	Pro	Tyr	Val	Gly	Glu	Met	Ser	Ala	Val
465					470					475					480
Thr	Leu	Ala	Arg	Leu	Arg	Ala	Thr	Asp	Leu	Asp	Gln	Glu	Val	Lys	Glu
				485					490					495	
Arg	Ala	Ile	Ser	Cys	Met	Gly	His	Leu	Val	Gly	His	Leu	Gly	Asp	Arg
		500					505						510		
Leu	Gly	Asp	Asp	Leu	Glu	Pro	Thr	Leu	Leu	Leu	Leu	Leu	Asp	Arg	Leu
	515						520						525		
Arg	Asn	Glu	Ile	Thr	Arg	Leu	Pro	Ala	Ile	Lys	Ala	Leu	Thr	Leu	Val
	530					535					540				
Ala	Val	Ser	Pro	Leu	Gln	Leu	Asp	Leu	Gln	Pro	Ile	Leu	Ala	Glu	Ala
545					550					555					560
Leu	His	Ile	Leu	Ala	Ser	Phe	Leu	Arg	Lys	Asn	Gln	Arg	Ala	Leu	Arg
				565					570					575	
Leu	Ala	Thr	Leu	Ala	Ala	Leu	Asp	Ala	Leu	Ala	Gln	Ser	Gln	Gly	Leu
		580						585					590		
Ser	Leu	Pro	Pro	Ser	Ala	Val	Gln	Ala	Val	Leu	Ala	Glu	Leu	Pro	Ala
	595						600					605			
Leu	Val	Asn	Glu	Ser	Asp	Met	His	Val	Ala	Gln	Leu	Ala	Val	Asp	Phe
	610					615					620				
Leu	Ala	Thr	Val	Thr	Gln	Ala	Gln	Pro	Ala	Ser	Leu	Val	Glu	Val	Ser
625					630					635					640
Gly	Pro	Val	Leu	Ser	Glu	Leu	Leu	Arg	Leu	Leu	Arg	Ser	Pro	Leu	Leu
				645					650					655	
Pro	Ala	Gly	Val	Leu	Ala	Ala	Ala	Glu	Gly	Phe	Leu	Gln	Ala	Leu	Val
	660							665					670		
Gly	Thr	Arg	Pro	Pro	Cys	Val	Asp	Tyr	Ala	Lys	Leu	Ile	Ser	Leu	Leu
	675						680					685			
Thr	Ala	Pro	Val	Tyr	Glu	Gln	Ala	Val	Asp	Gly	Gly	Pro	Gly	Leu	His
	690					695					700				
Lys	Gln	Val	Phe	His	Ser	Leu	Ala	Arg	Cys	Val	Ala	Ala	Leu	Ser	Ala
705					710					715					720
Ala	Cys	Pro	Gln	Glu	Ala	Ala	Ser	Thr	Ala	Ser	Arg	Leu	Val	Cys	Asp
				725					730					735	
Ala	Arg	Ser	Pro	His	Ser	Ser	Thr	Gly	Val	Lys	Val	Leu	Ala	Phe	Leu
	740							745					750		
Ser	Leu	Ala	Glu	Val	Gly	Gln	Val	Ala	Gly	Pro	Gly	Pro	Gln	Arg	Glu
	755					760						765			
Leu	Lys	Ala	Val	Leu	Leu	Glu	Ala	Leu	Gly	Ser	Pro	Ser	Glu	Asp	Val
	770					775					780				

Arg Ala Ala Ala Ser Tyr Ala Leu Gly Arg Val Gly Ala Gly Ser Leu
 785 790 795 800
 Pro Asp Phe Leu Pro Phe Leu Leu Glu Gln Ile Glu Ala Glu Pro Arg
 805 810 815
 Arg Gln Tyr Leu Leu Leu His Ser Leu Arg Glu Ala Leu Gly Ala Ala
 820 825 830
 Gln Pro Asp Ser Leu Lys Pro Tyr Ala Glu Asp Ile Trp Ala Leu Leu
 835 840 845
 Phe Gln Arg Cys Glu Gly Ala Glu Glu Gly Thr Arg Gly Val Val Ala
 850 855 860
 Glu Cys Ile Gly Lys Leu Val Leu Val Asn Pro Ser Phe Leu Leu Pro
 865 870 875 880
 Arg Leu Arg Lys Gln Leu Ala Ala Gly Arg Pro His Thr Arg Ser Thr
 885 890 895
 Val Ile Thr Ala Val Lys Phe Leu Ile Ser Asp Gln Pro His Pro Ile
 900 905 910
 Asp Pro Leu Leu Lys Ser Phe Ile Ala Val His Asn Lys Pro Ser Leu
 915 920 925
 Val Arg Asp Leu Leu Asp Asp Ile Leu Pro Leu Leu Tyr Gln Glu Thr
 930 935 940
 Lys Ile Arg Arg Asp Leu Ile Arg Glu Val Glu Met Gly Pro Phe Lys
 945 950 955 960
 His Thr Val Asp Asp Gly Leu Asp Val Arg Lys Ala Ala Phe Glu Cys
 965 970 975
 Met Tyr Ser Leu Leu Glu Ser Cys Leu Gly Gln Leu Asp Ile Cys Glu
 980 985 990
 Phe Leu Asn His Val Glu Asp Gly Leu Lys Asp His Tyr Asp Ile Arg
 995 1000 1005
 Met Leu Thr Phe Ile Met Val Ala Arg Leu Ala Thr Leu Cys Pro Ala
 1010 1015 1020
 Pro Val Leu Gln Arg Val Asp Arg Leu Ile Glu Pro Leu Arg Ala Thr
 1025 1030 1035 1040
 Cys Thr Ala Lys Val Lys Ala Gly Ser Val Lys Gln Glu Phe Glu Lys
 1045 1050 1055
 Gln Asp Glu Leu Lys Arg Ser Ala Met Arg Ala Val Ala Ala Leu Leu
 1060 1065 1070
 Thr Ile Pro Glu Val Gly Lys Ser Pro Ile Met Ala Asp Phe Ser Ser
 1075 1080 1085
 Gln Ile Arg Ser Asn Pro Glu Leu Ala Ala Leu Phe Glu Ser Ile Gln
 1090 1095 1100
 Lys Asp Ser Thr Ser Ala Pro Ser Thr Asp Ser Met Glu Leu Ser
 1105 1110 1115 1119

<210> 1787

<211> 1144

<212> PRT

<213> Homo sapiens

<400> 1787

Met Ser Thr Ala Ala Phe His Ile Ser Ser Leu Leu Glu Lys Met Thr
 1 5 10 15
 Ser Ser Asp Lys Asp Phe Arg Phe Met Ala Thr Ser Asp Leu Met Ser
 20 25 30
 Glu Leu Gln Lys Asp Ser Ile Gln Leu Asp Glu Asp Ser Glu Arg Lys
 35 40 45
 Val Val Lys Met Leu Leu Arg Leu Leu Glu Asp Lys Asn Gly Glu Val
 50 55 60
 Gln Asn Leu Ala Val Lys Trp Leu Gly Val Pro Leu Gly Ala Phe His
 65 70 75 80
 Ala Ser Leu Leu His Cys Leu Leu Pro Gln Leu Ser Ser Pro Arg Leu
 85 90 95

Ala	Val	Arg	Lys	Arg	Ala	Val	Gly	Ala	Leu	Gly	His	Leu	Ala	Ala	Ala
			100					105					110		
Cys	Ser	Thr	Asp	Leu	Phe	Val	Glu	Leu	Ala	Asp	His	Leu	Leu	Asp	Arg
		115					120					125			
Leu	Pro	Gly	Pro	Arg	Val	Pro	Thr	Ser	Pro	Thr	Ala	Ile	Arg	Thr	Leu
	130				135						140				
Ile	Gln	Cys	Leu	Gly	Ser	Val	Gly	Arg	Gln	Ala	Gly	His	Arg	Leu	Gly
145					150					155					160
Ala	His	Leu	Asp	Arg	Leu	Val	Pro	Leu	Val	Glu	Asp	Phe	Cys	Asn	Leu
				165					170					175	
Asp	Asp	Asp	Glu	Leu	Arg	Glu	Ser	Cys	Leu	Gln	Ala	Phe	Glu	Ala	Phe
			180					185					190		
Leu	Arg	Lys	Cys	Pro	Lys	Glu	Met	Gly	Pro	His	Val	Pro	Asn	Val	Thr
		195					200						205		
Ser	Leu	Cys	Leu	Gln	Tyr	Ile	Lys	His	Asp	Pro	Asn	Tyr	Asn	Tyr	Asp
	210				215						220				
Ser	Asp	Glu	Asp	Glu	Glu	Gln	Met	Glu	Thr	Glu	Asp	Ser	Glu	Phe	Ser
225					230					235					240
Glu	Gln	Glu	Ser	Glu	Asp	Glu	Tyr	Ser	Asp	Asp	Asp	Asp	Met	Ser	Trp
				245					250					255	
Lys	Val	Arg	Arg	Ala	Ala	Ala	Lys	Cys	Ile	Ala	Ala	Leu	Ile	Ser	Ser
			260					265					270		
Arg	Pro	Asp	Leu	Leu	Pro	Asp	Phe	His	Cys	Thr	Leu	Ala	Pro	Val	Leu
		275					280						285		
Ile	Arg	Arg	Phe	Lys	Glu	Arg	Glu	Glu	Asn	Val	Lys	Ala	Asp	Val	Phe
	290				295						300				
Thr	Ala	Tyr	Ile	Val	Leu	Leu	Arg	Gln	Thr	Arg	Pro	Pro	Lys	Gly	Trp
305					310					315					320
Leu	Glu	Ala	Met	Glu	Glu	Pro	Thr	Gln	Thr	Gly	Ser	Asn	Leu	His	Met
				325					330					335	
Leu	Arg	Gly	Gln	Val	Pro	Leu	Val	Val	Lys	Ala	Leu	Gln	Arg	Gln	Leu
			340					345					350		
Lys	Asp	Arg	Ser	Val	Arg	Ala	Arg	Gln	Gly	Cys	Phe	Ser	Leu	Leu	Thr
		355					360					365			
Glu	Leu	Ala	Gly	Val	Leu	Pro	Gly	Ser	Leu	Ala	Glu	His	Met	Pro	Val
	370				375						380				
Leu	Val	Ser	Gly	Ile	Ile	Phe	Ser	Leu	Ala	Asp	Arg	Ser	Ser	Ser	Ser
385					390					395					400
Thr	Ile	Arg	Met	Asp	Ala	Leu	Ala	Phe	Leu	Gln	Gly	Leu	Leu	Gly	Thr
			405					410						415	
Glu	Pro	Ala	Glu	Ala	Phe	His	Pro	His	Leu	Pro	Ile	Leu	Leu	Pro	Pro
			420					425					430		
Val	Met	Ala	Cys	Val	Ala	Asp	Ser	Phe	Tyr	Lys	Ile	Ala	Ala	Glu	Ala
	435						440					445			
Leu	Val	Val	Leu	Gln	Glu	Leu	Val	Arg	Ala	Leu	Trp	Pro	Leu	His	Arg
	450					455					460				
Pro	Arg	Met	Leu	Asp	Pro	Glu	Pro	Tyr	Val	Gly	Glu	Met	Ser	Ala	Val
465					470					475					480
Thr	Leu	Ala	Arg	Leu	Arg	Ala	Thr	Asp	Leu	Asp	Gln	Glu	Val	Lys	Glu
				485				490						495	
Arg	Ala	Ile	Ser	Cys	Met	Gly	His	Leu	Val	Gly	His	Leu	Gly	Asp	Arg
			500					505					510		
Leu	Gly	Asp	Asp	Leu	Glu	Pro	Thr	Leu	Leu	Leu	Leu	Leu	Asp	Arg	Leu
		515					520						525		
Arg	Asn	Glu	Ile	Thr	Arg	Leu	Pro	Ala	Ile	Lys	Ala	Leu	Thr	Leu	Val
	530					535					540				
Ala	Val	Ser	Pro	Leu	Gln	Leu	Asp	Leu	Gln	Pro	Ile	Leu	Ala	Glu	Ala
545					550					555					560
Leu	His	Ile	Leu	Ala	Ser	Phe	Leu	Arg	Lys	Asn	Gln	Arg	Ala	Leu	Arg
				565					570					575	
Leu	Ala	Thr	Leu	Ala	Ala	Leu	Asp	Ala	Leu	Ala	Gln	Ser	Gln	Gly	Leu
			580					585					590		
Ser	Leu	Pro	Pro	Ser	Ala	Val	Gln	Ala	Val	Leu	Ala	Glu	Leu	Pro	Ala
		595					600						605		

Leu Val Asn Glu Ser Asp Met His Val Ala Gln Leu Ala Val Asp Phe
 610 615 620
 Leu Ala Thr Val Thr Gln Ala Gln Pro Ala Ser Leu Val Glu Val Ser
 625 630 635 640
 Gly Pro Val Leu Ser Glu Leu Leu Arg Leu Leu Arg Ser Pro Leu Leu
 645 650 655
 Pro Ala Gly Val Leu Ala Ala Ala Glu Gly Phe Leu Gln Ala Leu Val
 660 665 670
 Gly Thr Arg Pro Pro Cys Val Asp Tyr Ala Lys Leu Ile Ser Leu Leu
 675 680 685
 Thr Ala Pro Val Tyr Glu Gln Ala Val Asp Gly Gly Pro Gly Leu His
 690 695 700
 Lys Gln Val Phe His Ser Leu Ala Arg Cys Val Ala Ala Leu Ser Ala
 705 710 715 720
 Ala Cys Pro Gln Glu Ala Ala Ser Thr Ala Ser Arg Leu Val Cys Asp
 725 730 735
 Ala Arg Ser Pro His Ser Ser Thr Gly Val Lys Val Leu Ala Phe Leu
 740 745 750
 Ser Leu Ala Glu Val Gly Gln Val Ala Gly Pro Gly Pro Gln Arg Glu
 755 760 765
 Leu Lys Ala Val Leu Leu Glu Ala Leu Gly Ser Pro Ser Glu Asp Val
 770 775 780
 Arg Ala Ala Ala Ser Tyr Ala Leu Gly Arg Val Gly Ala Gly Ser Leu
 785 790 795 800
 Pro Asp Phe Leu Pro Phe Leu Leu Glu Gln Ile Glu Ala Glu Pro Arg
 805 810 815
 Arg Gln Tyr Leu Leu Leu His Ser Leu Arg Glu Ala Leu Gly Ala Ala
 820 825 830
 Gln Pro Asp Ser Leu Lys Pro Tyr Ala Glu Asp Ile Trp Ala Leu Leu
 835 840 845
 Phe Gln Arg Cys Glu Gly Ala Glu Glu Gly Thr Arg Gly Val Val Ala
 850 855 860
 Glu Cys Ile Gly Lys Leu Val Leu Val Asn Pro Ser Phe Leu Leu Pro
 865 870 875 880
 Arg Leu Arg Lys Gln Leu Ala Ala Gly Arg Pro His Thr Arg Ser Thr
 885 890 895
 Val Ile Thr Ala Val Lys Phe Leu Ile Ser Asp Gln Pro His Pro Ile
 900 905 910
 Asp Pro Leu Leu Lys Ser Phe Ile Gly Glu Phe Met Glu Ser Leu Gln
 915 920 925
 Asp Pro Asp Leu Asn Val Arg Arg Ala Thr Leu Ala Phe Phe Asn Ser
 930 935 940
 Ala Val His Asn Lys Pro Ser Leu Val Arg Asp Leu Leu Asp Asp Ile
 945 950 955 960
 Leu Pro Leu Leu Tyr Gln Glu Thr Lys Ile Arg Arg Asp Leu Ile Arg
 965 970 975
 Glu Val Glu Met Gly Pro Phe Lys His Thr Val Asp Asp Gly Leu Asp
 980 985 990
 Val Arg Lys Ala Ala Phe Glu Cys Met Tyr Ser Leu Leu Glu Ser Cys
 995 1000 1005
 Leu Gly Gln Leu Asp Ile Cys Glu Phe Leu Asn His Val Glu Asp Gly
 1010 1015 1020
 Leu Lys Asp His Tyr Asp Ile Arg Met Leu Thr Phe Ile Met Val Ala
 1025 1030 1035 1040
 Arg Leu Ala Thr Leu Cys Pro Ala Pro Val Leu Gln Arg Val Asp Arg
 1045 1050 1055
 Leu Ile Glu Pro Leu Arg Ala Thr Cys Thr Ala Lys Val Lys Ala Gly
 1060 1065 1070
 Ser Val Lys Gln Glu Phe Glu Lys Gln Asp Glu Leu Lys Arg Ser Ala
 1075 1080 1085
 Met Arg Ala Val Ala Ala Leu Leu Thr Ile Pro Glu Val Gly Lys Ser
 1090 1095 1100
 Pro Ile Met Ala Asp Phe Ser Ser Gln Ile Arg Ser Asn Pro Glu Leu
 1105 1110 1115 1120

Ala Ala Leu Phe Glu Ser Ile Gln Lys Asp Ser Thr Ser Ala Pro Ser
 1125 1130 1135
 Thr Asp Ser Met Glu Leu Ser *
 1140 1143

<210> 1788
 <211> 393
 <212> PRT
 <213> Homo sapiens

<400> 1788
 Met Ile Thr Leu Ile Thr Glu Gln Leu Gln Lys Gln Thr Leu Asp Glu
 1 5 10 15
 Leu Lys Cys Thr Arg Phe Ser Ile Ser Leu Pro Leu Pro Asp His Ala
 20 25 30
 Asp Ile Ser Asn Cys Gly Asn Ser Phe Gln Leu Val Ser Glu Gly Ala
 35 40 45
 Ser Trp Arg Gly Leu Pro His Cys Ser Cys Ala Glu Phe Gln Asp Ser
 50 55 60
 Leu Asn Phe Ser Tyr His Pro Ser Gly Leu Ser Leu His Leu Arg Pro
 65 70 75 80
 Pro Ser Arg Gly Asn Ser Pro Lys Glu Gln Pro Phe Ser Gln Val Leu
 85 90 95
 Arg Pro Glu Pro Pro Asp Pro Glu Lys Leu Pro Val Pro Pro Ala Pro
 100 105 110
 Pro Ser Lys Arg His Cys Arg Ser Leu Ser Val Pro Val Asp Leu Ser
 115 120 125
 Arg Trp Gln Pro Val Trp Arg Pro Ala Pro Ser Lys Leu Trp Thr Pro
 130 135 140
 Ile Lys His Arg Gly Ser Gly Gly Gly Gly Gly Pro Gln Val Pro His
 145 150 155 160
 Gln Ser Pro Pro Lys Arg Val Ser Ser Leu Arg Phe Leu Gln Ala Pro
 165 170 175
 Ser Ala Ser Ser Gln Cys Ala Pro Ala His Arg Pro Tyr Ser Pro Pro
 180 185 190
 Phe Phe Ser Leu Ala Leu Ala Gln Asp Ser Ser Arg Pro Cys Ala Ala
 195 200 205
 Ser Pro Gln Ser Gly Ser Trp Glu Ser Asp Ala Glu Ser Leu Ser Pro
 210 215 220
 Cys Pro Pro Gln Arg Arg Phe Ser Leu Ser Pro Ser Leu Gly Pro Gln
 225 230 235 240
 Ala Ser Arg Phe Leu Pro Ser Ala Arg Ser Ser Pro Ala Ser Ser Pro
 245 250 255
 Glu Leu Pro Trp Arg Pro Arg Gly Leu Arg Asn Leu Pro Arg Ser Arg
 260 265 270
 Ser Gln Pro Cys Asp Leu Asp Ala Arg Lys Thr Gly Val Lys Arg Arg
 275 280 285
 His Glu Glu Asp Pro Arg Arg Leu Arg Pro Ser Leu Asp Phe Asp Lys
 290 295 300
 Met Asn Gln Lys Pro Tyr Ser Gly Gly Leu Cys Leu Gln Glu Thr Ala
 305 310 315 320
 Arg Glu Gly Ser Ser Ile Ser Pro Pro Trp Phe Met Ala Cys Ser Pro
 325 330 335
 Pro Pro Leu Ser Ala Ser Cys Ser Pro Thr Gly Gly Ser Ser Gln Val
 340 345 350
 Leu Ser Glu Ser Glu Glu Glu Glu Gly Ala Val Arg Trp Gly Arg
 355 360 365
 Gln Ala Leu Ser Lys Arg Thr Leu Cys Gln Arg Asp Phe Gly Asp Leu
 370 375 380
 Asp Leu Asn Leu Ile Glu Glu Asn *
 385 390 392

<210> 1789
 <211> 543
 <212> PRT
 <213> Homo sapiens

<400> 1789
 Met Glu Pro Asp Ser Val Ile Glu Asp Lys Thr Ile Glu Leu Met Cys
 1 5 10 15
 Ser Val Pro Arg Ser Leu Trp Leu Gly Cys Ala Asn Leu Val Glu Ser
 20 25 30
 Met Cys Ala Leu Ser Cys Leu Gln Ser Met Pro Ser Val Arg Cys Leu
 35 40 45
 Gln Ile Ser Asn Gly Thr Ser Ser Val Ile Val Ser Arg Lys Arg Pro
 50 55 60
 Ser Glu Gly Asn Tyr Gln Lys Glu Lys Asp Leu Cys Ile Lys Tyr Phe
 65 70 75 80
 Asp Gln Trp Ser Glu Ser Asp Gln Val Glu Phe Val Glu His Leu Ile
 85 90 95
 Ser Arg Met Cys His Tyr Gln His Gly His Ile Asn Ser Tyr Leu Lys
 100 105 110
 Pro Met Leu Gln Arg Asp Phe Ile Thr Ala Leu Pro Glu Gln Gly Leu
 115 120 125
 Asp His Ile Ala Glu Asn Ile Leu Ser Tyr Leu Asp Ala Arg Ser Leu
 130 135 140
 Cys Ala Ala Glu Leu Val Cys Lys Glu Trp Gln Arg Val Ile Ser Glu
 145 150 155 160
 Gly Met Leu Trp Lys Lys Leu Ile Glu Arg Met Val Arg Thr Asp Pro
 165 170 175
 Leu Trp Lys Gly Leu Ser Glu Arg Arg Gly Trp Asp Gln Tyr Leu Phe
 180 185 190
 Lys Asn Arg Pro Thr Asp Gly Pro Pro Asn Ser Phe Tyr Arg Ser Leu
 195 200 205
 Tyr Pro Lys Ile Ile Gln Asp Ile Glu Thr Ile Glu Ser Asn Trp Arg
 210 215 220
 Cys Gly Arg His Asn Leu Gln Arg Ile Gln Cys Arg Ser Glu Asn Ser
 225 230 235 240
 Lys Gly Val Tyr Cys Leu Gln Tyr Asp Asp Glu Lys Ile Ile Ser Gly
 245 250 255
 Leu Arg Asp Asn Ser Ile Lys Ile Trp Asp Lys Thr Ser Leu Glu Cys
 260 265 270
 Leu Lys Val Leu Thr Gly His Thr Gly Ser Val Leu Cys Leu Gln Tyr
 275 280 285
 Asp Glu Arg Val Ile Val Thr Gly Ser Ser Asp Ser Thr Val Arg Val
 290 295 300
 Trp Asp Val Asn Thr Gly Glu Val Leu Asn Thr Leu Ile His His Asn
 305 310 315 320
 Glu Ala Val Leu His Leu Arg Phe Ser Asn Gly Leu Met Val Thr Cys
 325 330 335
 Ser Lys Asp Arg Ser Ile Ala Val Trp Asp Met Ala Ser Ala Thr Asp
 340 345 350
 Ile Thr Leu Arg Arg Val Leu Val Gly His Arg Ala Ala Val Asn Val
 355 360 365
 Val Asp Phe Asp Asp Lys Tyr Ile Val Ser Ala Ser Gly Asp Arg Thr
 370 375 380
 Ile Lys Val Trp Ser Thr Ser Thr Cys Glu Phe Val Arg Thr Leu Asn
 385 390 395 400
 Gly His Lys Arg Gly Ile Ala Cys Leu Gln Tyr Arg Asp Arg Leu Val
 405 410 415
 Val Ser Gly Ser Ser Asp Asn Thr Ile Arg Leu Trp Asp Ile Glu Cys
 420 425 430

Gly Ala Cys Leu Arg Val Leu Glu Gly His Glu Glu Leu Val Arg Cys
 435 440 445
 Ile Arg Phe Asp Asn Lys Arg Ile Val Ser Gly Ala Tyr Asp Gly Lys
 450 455 460
 Ile Lys Val Trp Asp Leu Gln Ala Ala Leu Asp Pro Arg Ala Pro Ala
 465 470 475 480
 Ser Thr Leu Cys Leu Arg Thr Leu Val Glu His Ser Gly Arg Val Phe
 485 490 495
 Arg Leu Gln Phe Asp Glu Phe Gln Ile Ile Ser Ser Ser His Asp Asp
 500 505 510
 Thr Ile Leu Ile Trp Asp Phe Leu Asn Val Pro Pro Ser Ala Gln Asn
 515 520 525
 Glu Thr Arg Ser Pro Ser Arg Thr Tyr Thr Tyr Ile Ser Arg *
 530 535 540 542

<210> 1790

<211> 944

<212> PRT

<213> Homo sapiens

<400> 1790

Met Asp Gly Ser Thr Glu Arg Leu Glu Ala Arg Arg Pro Ala Gly Arg
 1 5 10 15
 Leu Pro Trp Ser Ser Arg Gln Glu Met Thr Arg Arg Pro Ser Leu Met
 20 25 30
 Ala Gly Arg Gln His Gly Trp Ser Ala Gln Gln Ser Ala Thr Val Ala
 35 40 45
 Asn Pro Val Pro Gly Ala Asn Pro Asp Leu Leu Pro His Phe Leu Val
 50 55 60
 Glu Pro Glu Asp Val Tyr Ile Val Lys Asn Lys Pro Val Leu Leu Val
 65 70 75 80
 Cys Lys Ala Val Pro Ala Thr Gln Ile Phe Phe Lys Cys Asn Gly Glu
 85 90 95
 Trp Val Arg Gln Val Asp His Val Ile Glu Arg Ser Thr Asp Gly Ser
 100 105 110
 Ser Gly Leu Pro Thr Met Glu Val Arg Ile Asn Val Ser Arg Gln Gln
 115 120 125
 Val Glu Lys Val Phe Gly Leu Glu Glu Tyr Trp Cys Gln Cys Val Ala
 130 135 140
 Trp Ser Ser Ser Gly Thr Thr Lys Ser Gln Lys Ala Tyr Ile Arg Ile
 145 150 155 160
 Ala Tyr Leu Arg Lys Asn Phe Glu Gln Glu Pro Leu Ala Lys Glu Val
 165 170 175
 Ser Leu Glu Gln Gly Ile Val Leu Pro Cys Arg Pro Pro Glu Gly Ile
 180 185 190
 Pro Pro Ala Glu Val Glu Trp Leu Arg Asn Glu Asp Leu Val Asp Pro
 195 200 205
 Ser Leu Asp Pro Asn Val Tyr Ile Thr Arg Glu His Ser Leu Val Val
 210 215 220
 Arg Gln Ala Arg Leu Ala Asp Thr Ala Asn Tyr Thr Cys Val Ala Lys
 225 230 235 240
 Asn Ile Val Ala Arg Arg Arg Ser Ala Ser Ala Ala Val Ile Val Tyr
 245 250 255
 Gly Gly Pro Arg Asp Ser Leu Val Thr Gly Arg Gly Thr Ala Val Pro
 260 265 270
 Leu Gly Ser Asp Met Trp Leu Ser Phe Ser Val Arg Pro Val Asn Gly
 275 280 285
 Gly Trp Ser Thr Trp Thr Glu Trp Ser Val Cys Ser Ala Ser Cys Gly
 290 295 300
 Arg Gly Trp Gln Lys Arg Ser Arg Ser Cys Thr Asn Pro Ala Pro Leu
 305 310 315 320

Asn Gly Gly Ala Phe Cys Glu Gly Gln Asn Val Gln Lys Thr Ala Cys
 325 330 335
 Ala Thr Leu Cys Pro Val Asp Gly Ser Trp Ser Pro Trp Ser Lys Trp
 340 345 350
 Ser Ala Cys Gly Leu Asp Cys Thr His Trp Arg Ser Arg Glu Cys Ser
 355 360 365
 Asp Pro Ala Pro Arg Asn Gly Gly Glu Glu Cys Gln Gly Thr Asp Leu
 370 375 380
 Asp Thr Arg Asn Cys Thr Ser Asp Leu Cys Val His Asn Ser Tyr Thr
 385 390 395 400
 Pro Ala Pro Thr Lys Ala Met Leu Ser Pro Ala Ala Ala Ser Gly Pro
 405 410 415
 Glu Asp Val Ala Leu Tyr Val Gly Leu Ile Ala Val Ala Val Cys Leu
 420 425 430
 Val Leu Leu Leu Leu Val Leu Ile Leu Val Tyr Cys Arg Lys Lys Glu
 435 440 445
 Gly Leu Asp Ser Asp Val Ala Asp Ser Ser Ile Leu Thr Ser Gly Phe
 450 455 460
 Gln Pro Val Ser Ile Lys Pro Ser Lys Ala Asp Asn Pro His Leu Leu
 465 470 475 480
 Thr Ile Gln Pro Asp Leu Ser Thr Thr Thr Thr Tyr Gln Gly Ser
 485 490 495
 Leu Cys Pro Arg Gln Asp Gly Pro Ser Pro Lys Phe Gln Leu Thr Asn
 500 505 510
 Gly His Leu Leu Ser Pro Leu Gly Gly Arg His Thr Leu His His
 515 520 525
 Ser Ser Pro Thr Ser Glu Ala Glu Glu Phe Val Ser Arg Leu Ser Thr
 530 535 540
 Gln Asn Tyr Phe Arg Ser Leu Pro Arg Gly Thr Ser Asn Met Thr Tyr
 545 550 555 560
 Gly Thr Phe Asn Phe Leu Gly Gly Arg Leu Met Ile Pro Asn Thr Gly
 565 570 575
 Ile Ser Leu Leu Ile Pro Pro Asp Ala Ile Pro Arg Gly Lys Ile Tyr
 580 585 590
 Glu Ile Tyr Leu Thr Leu His Lys Pro Glu Asp Val Ser Cys Gly Pro
 595 600 605
 Pro Gly Val Leu Leu Thr Arg Pro Val Ile Leu Ala Met Asp His Cys
 610 615 620
 Gly Glu Pro Ser Pro Asp Ser Trp Ser Leu Arg Leu Lys Lys Gln Ser
 625 630 635 640
 Cys Glu Gly Ser Trp Glu Asp Val Leu His Leu Gly Glu Glu Ala Pro
 645 650 655
 Ser His Leu Tyr Tyr Cys Gln Leu Glu Ala Ser Ala Cys Tyr Val Phe
 660 665 670
 Thr Glu Gln Leu Gly Arg Phe Ala Leu Val Gly Glu Ala Leu Ser Val
 675 680 685
 Ala Ala Ala Lys Arg Leu Lys Leu Leu Leu Phe Ala Pro Val Ala Cys
 690 695 700
 Thr Ser Leu Glu Tyr Asn Ile Arg Val Tyr Cys Leu His Asp Thr His
 705 710 715 720
 Asp Ala Leu Lys Glu Val Val Gln Leu Glu Lys Gln Leu Gly Gly Gln
 725 730 735
 Leu Ile Gln Glu Pro Arg Val Leu His Phe Lys Asp Ser Tyr His Asn
 740 745 750
 Leu Arg Leu Ser Ile His Asp Val Pro Ser Ser Leu Trp Lys Ser Lys
 755 760 765
 Leu Leu Val Ser Tyr Gln Glu Ile Pro Phe Tyr His Ile Trp Asn Gly
 770 775 780
 Thr Gln Arg Tyr Leu His Cys Thr Phe Thr Leu Glu Arg Val Ser Pro
 785 790 795 800
 Ser Thr Ser Asp Leu Ala Cys Lys Leu Trp Val Trp Gln Val Glu Gly
 805 810 815
 Asp Gly Gln Ser Phe Ser Ile Asn Phe Asn Ile Thr Lys Asp Thr Arg
 820 825 830

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Phe Ala Glu Leu Leu Ala Leu Glu Ser Glu Ala Gly Val Pro Ala Leu
      835                      840                      845
Val Gly Pro Ser Ala Phe Lys Ile Pro Phe Leu Ile Arg Gln Lys Ile
      850                      855                      860
Ile Ser Ser Leu Asp Pro Pro Cys Arg Arg Gly Ala Asp Trp Arg Thr
865                      870                      875                      880
Leu Ala Gln Lys Leu His Leu Asp Ser His Leu Ser Phe Phe Ala Ser
      885                      890                      895
Lys Pro Ser Pro Thr Ala Met Ile Leu Asn Leu Trp Glu Ala Arg His
      900                      905                      910
Phe Pro Asn Gly Asn Leu Ser Gln Leu Ala Ala Ala Val Ala Gly Leu
      915                      920                      925
Gly Gln Pro Asp Ala Gly Leu Phe Thr Val Ser Glu Ala Glu Cys *
      930                      935                      940                      943

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<210> 1791
<211> 1004
<212> PRT
<213> Homo sapiens

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<400> 1791
Met Arg Lys Phe Asn Ile Arg Lys Val Leu Asp Gly Leu Thr Ala Gly
 1                      5                      10                      15
Ser Ser Ser Ala Ser Gln Gln Gln Gln Gln Gln His Pro Pro Gly Asn
      20                      25                      30
Arg Glu Pro Glu Ile Gln Glu Thr Leu Gln Ser Glu His Phe Gln Leu
      35                      40                      45
Cys Lys Thr Val Arg His Gly Phe Pro Tyr Gln Pro Ser Ala Leu Ala
      50                      55                      60
Phe Asp Pro Val Gln Lys Ile Leu Ala Val Gly Thr Gln Thr Gly Ala
      65                      70                      75                      80
Leu Arg Leu Phe Gly Arg Pro Gly Val Glu Cys Tyr Cys Gln His Asp
      85                      90                      95
Ser Gly Ala Ala Val Ile Gln Leu Gln Phe Leu Ile Asn Glu Gly Ala
      100                      105                      110
Leu Val Ser Ala Leu Ala Asp Asp Thr Leu His Leu Trp Asn Leu Arg
      115                      120                      125
Gln Lys Arg Pro Ala Ile Leu His Ser Leu Lys Phe Cys Arg Glu Arg
      130                      135                      140
Val Thr Phe Cys His Leu Pro Phe Gln Ser Lys Trp Leu Tyr Val Gly
145                      150                      155                      160
Thr Glu Arg Gly Asn Ile His Ile Val Asn Val Glu Ser Phe Thr Leu
      165                      170                      175
Ser Gly Tyr Val Ile Met Trp Asn Lys Ala Ile Glu Leu Ser Ser Lys
      180                      185                      190
Ser His Pro Gly Pro Val Val His Ile Ser Asp Asn Pro Met Asp Glu
      195                      200                      205
Gly Lys Leu Leu Ile Gly Phe Glu Ser Gly Thr Val Val Leu Trp Asp
      210                      215                      220
Leu Lys Tyr Lys Lys Ala Asp Tyr Arg Tyr Thr Tyr Asp Glu Ala Ile
225                      230                      235                      240
His Ser Val Ala Trp His His Glu Gly Lys Gln Phe Ile Cys Ser His
      245                      250                      255
Ser Asp Gly Thr Leu Thr Ile Trp Asn Val Arg Ser Pro Ala Lys Pro
      260                      265                      270
Val Gln Thr Ile Thr Pro His Gly Lys Gln Leu Arg Asp Gly Lys Lys
      275                      280                      285
Pro Glu Pro Cys Lys Pro Ile Leu Lys Val Glu Phe Lys Thr Thr Arg
      290                      295                      300
Ser Gly Glu Pro Phe Ile Ile Leu Ser Gly Gly Leu Ser Tyr Asp Thr
305                      310                      315                      320

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Val	Gly	Arg	Arg	Pro	Cys	Leu	Thr	Val	Met	His	Gly	Lys	Ser	Thr	Ala
				325					330					335	
Val	Leu	Glu	Met	Asp	Tyr	Ser	Ile	Val	Asp	Phe	Leu	Thr	Leu	Cys	Glu
			340					345					350		
Thr	Pro	Tyr	Pro	Asn	Asp	Phe	Gln	Glu	Pro	Tyr	Ala	Val	Val	Val	Leu
		355					360					365			
Leu	Glu	Lys	Asp	Leu	Val	Leu	Ile	Asp	Leu	Ala	Gln	Asn	Gly	Tyr	Pro
	370					375					380				
Ile	Phe	Glu	Asn	Pro	Tyr	Pro	Leu	Ser	Ile	His	Glu	Ser	Pro	Val	Thr
385					390					395					400
Cys	Cys	Glu	Tyr	Phe	Ala	Asp	Cys	Pro	Val	Asp	Leu	Ile	Pro	Ala	Leu
				405					410					415	
Tyr	Ser	Val	Gly	Ala	Arg	Gln	Lys	Arg	Gln	Gly	Tyr	Ser	Lys	Lys	Glu
			420					425					430		
Trp	Pro	Ile	Asn	Gly	Gly	Asn	Trp	Gly	Leu	Gly	Ala	Gln	Ser	Tyr	Pro
	435					440						445			
Glu	Ile	Ile	Ile	Thr	Gly	His	Ala	Asp	Gly	Ser	Val	Lys	Phe	Trp	Asp
	450					455					460				
Ala	Ser	Ala	Ile	Thr	Leu	Gln	Val	Leu	Tyr	Lys	Leu	Lys	Thr	Ser	Lys
465					470					475					480
Val	Phe	Glu	Lys	Ser	Arg	Asn	Lys	Asp	Asp	Arg	Pro	Asn	Thr	Asp	Ile
				485				490						495	
Val	Asp	Glu	Asp	Pro	Tyr	Ala	Ile	Gln	Ile	Ile	Ser	Trp	Cys	Pro	Glu
			500					505					510		
Ser	Arg	Met	Leu	Cys	Ile	Ala	Gly	Val	Ser	Ala	His	Val	Ile	Ile	Tyr
	515						520					525			
Arg	Phe	Ser	Lys	Gln	Glu	Val	Ile	Thr	Glu	Val	Ile	Pro	Met	Leu	Glu
	530					535					540				
Val	Arg	Leu	Leu	Tyr	Glu	Ile	Asn	Asp	Val	Glu	Thr	Pro	Glu	Gly	Glu
545					550					555					560
Gln	Pro	Pro	Pro	Leu	Pro	Thr	Pro	Val	Gly	Gly	Ser	Asn	Pro	Gln	Pro
				565				570						575	
Ile	Pro	Pro	Gln	Ser	His	Pro	Ser	Thr	Ser	Ser	Ser	Ser	Ser	Asp	Gly
			580					585						590	
Leu	Arg	Asp	Asn	Val	Pro	Cys	Leu	Asn	Val	Val	Cys	Lys	Glu	His	Gly
		595					600					605			
Asn	His	Phe	Ile	Leu	Thr	Arg	Ser	Lys	Lys	Leu	Asn	Lys	Leu	Glu	Asn
	610						615					620			
Gln	Gln	Leu	Phe	Leu	Lys	Ile	Cys	Lys	Arg	Arg	Leu	Pro	Ser	Glu	Ile
625					630					635					640
Thr	Leu	Leu	Arg	Glu	Pro	Asn	Leu	Leu	Gly	Phe	Tyr	Gln	Gly	Pro	Thr
				645					650					655	
Asn	Leu	Arg	Glu	Glu	Lys	Ser	Leu	Gln	Trp	Ala	Gln	Ala	Phe	Gln	Val
			660					665						670	
Lys	Glu	Glu	Lys	Tyr	Ala	Thr	Pro	Ala	His	Phe	Ser	His	Leu	Ile	Pro
		675					680					685			
Pro	Lys	Arg	Glu	Trp	Glu	Glu	Val	Lys	Glu	Pro	Val	Glu	Phe	Glu	Ile
		690				695					700				
Ile	Asn	Leu	Lys	Leu	Phe	Glu	Ile	Tyr	Ile	Ser	Thr	Pro	Lys	Asn	Glu
705					710					715					720
Ile	Leu	Lys	Tyr	Lys	Ser	Asn	Lys	Tyr	Val	Gln	Asp	Leu	His	Glu	Glu
				725					730					735	
Gln	His	Lys	Thr	Leu	Gln	Ser	Glu	Asn	Ile	Leu	Tyr	Asp	Ile	Ile	Met
			740					745					750		
Met	Lys	Asp	Met	Val	Thr	Phe	Cys	His	Leu	Pro	Phe	Gln	Ser	Lys	Trp
		755					760					765			
Leu	Tyr	Val	Gly	Thr	Glu	Arg	Gly	Asn	Ile	His	Ile	Val	Asn	Val	Glu
	770					775						780			
Ser	Phe	Thr	Leu	Ser	Gly	Tyr	Val	Ile	Met	Trp	Asn	Lys	Ala	Ile	Glu
785					790					795					800
Leu	Ser	Ser	Lys	Ser	His	Pro	Gly	Pro	Val	Val	His	Ile	Ser	Asp	Asn
				805					810					815	
Pro	Met	Asp	Glu	Gly	Lys	Leu	Leu	Ile	Gly	Phe	Glu	Ser	Gly	Thr	Val
			820					825						830	

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Val Leu Trp Asp Leu Lys Ser Lys Lys Ala Asp Tyr Arg Tyr Thr Tyr
      835      840      845
Asp Glu Ala Ile His Ser Val Ala Trp His His Glu Gly Lys Gln Phe
      850      855      860
Ile Cys Ser His Ser Asp Gly Thr Leu Thr Ile Trp Asn Val Arg Ser
      865      870      875      880
Pro Ala Lys Pro Val Gln Thr Ile Thr Pro His Gly Lys Gln Leu Lys
      885      890      895
Asp Gly Lys Lys Pro Glu Pro Cys Lys Pro Ile Leu Lys Val Glu Phe
      900      905      910
Lys Thr Thr Arg Ser Gly Glu Pro Phe Ile Ile Leu Ser Gly Gly Leu
      915      920      925
Ser Tyr Asp Thr Val Gly Arg Arg Pro Cys Leu Thr Val Met His Gly
      930      935      940
Lys Ser Thr Ala Val Leu Glu Met Asp Tyr Ser Ile Val Asp Phe Leu
      945      950      955      960
Thr Leu Cys Glu Thr Pro Tyr Pro Asn Asp Phe Gln Glu Pro Tyr Ala
      965      970      975
Val Val Val Leu Leu Glu Lys Asp Leu Val Leu Ile Asp Leu Ala Gln
      980      985      990
Asn Gly Tyr Pro Ile Phe Glu Ile Pro Thr Leu *
      995      1000      1003

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<210> 1792
<211> 1750
<212> PRT
<213> Homo sapiens

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<400> 1792
Met His Leu Lys His Leu Arg Thr Leu Leu Ser Pro Gln Asp Gly Ala
  1      5      10      15
Ala Lys Val Thr Cys Met Ala Trp Ser Gln Asn Asn Ala Lys Phe Ala
      20      25      30
Val Cys Thr Val Asp Arg Val Val Leu Leu Tyr Asp Glu His Gly Glu
      35      40      45
Arg Arg Asp Lys Phe Ser Thr Lys Pro Ala Asp Met Lys Tyr Gly Arg
      50      55      60
Lys Ser Tyr Met Val Lys Gly Met Ala Phe Ser Pro Asp Ser Thr Lys
      65      70      75      80
Ile Ala Ile Gly Gln Thr Asp Asn Ile Ile Tyr Val Tyr Lys Ile Gly
      85      90      95
Glu Asp Trp Gly Asp Lys Lys Val Ile Cys Asn Lys Phe Ile Gln Thr
      100      105      110
Ser Ala Val Thr Cys Leu Gln Trp Pro Ala Glu Tyr Ile Ile Val Phe
      115      120      125
Gly Leu Ala Glu Gly Lys Val Arg Leu Ala Asn Thr Lys Thr Asn Lys
      130      135      140
Ser Ser Thr Ile Tyr Gly Thr Glu Ser Tyr Val Val Ser Leu Thr Thr
      145      150      155      160
Asn Cys Ser Gly Lys Gly Ile Leu Ser Gly His Ala Asp Gly Thr Ile
      165      170      175
Val Arg Tyr Phe Phe Asp Asp Glu Gly Ser Gly Glu Ser Gln Glu Lys
      180      185      190
Leu Val Asn His Pro Cys Pro Pro Tyr Ala Leu Ala Trp Ala Thr Asn
      195      200      205
Ser Ile Val Ala Ala Gly Cys Asp Arg Lys Ile Val Ala Tyr Gly Lys
      210      215      220
Glu Gly His Met Leu Gln Thr Phe Asp Tyr Ser Arg Asp Pro Gln Glu
      225      230      235      240
Arg Glu Phe Thr Thr Ala Val Ser Ser Pro Gly Gly Gln Ser Val Val
      245      250      255

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Leu Gly Ser Tyr Asp Arg Leu Arg Val Phe Asn Trp Ile Pro Arg Arg
 260 265 270
 Ser Ile Trp Glu Glu Ala Lys Pro Lys Glu Ile Thr Asn Leu Tyr Thr
 275 280 285
 Ile Thr Ala Leu Ala Trp Lys Arg Asp Gly Ser Arg Leu Cys Val Gly
 290 295 300
 Thr Leu Cys Gly Gly Val Glu Gln Phe Asp Cys Cys Leu Arg Arg Ser
 305 310 315 320
 Ile Tyr Lys Asn Lys Phe Glu Leu Thr Tyr Val Gly Pro Ser Gln Val
 325 330 335
 Ile Val Lys Asn Leu Ser Ser Gly Thr Arg Val Val Leu Lys Ser His
 340 345 350
 Tyr Gly Tyr Glu Val Glu Glu Val Lys Ile Leu Gly Lys Glu Arg Tyr
 355 360 365
 Leu Val Ala His Thr Ser Glu Thr Leu Leu Leu Gly Asp Leu Asn Thr
 370 375 380
 Asn Arg Leu Ser Glu Ile Ala Trp Gln Gly Ser Gly Gly Asn Glu Lys
 385 390 395 400
 Tyr Phe Phe Glu Asn Glu Asn Val Cys Met Ile Phe Asn Ala Gly Glu
 405 410 415
 Leu Thr Leu Val Glu Tyr Gly Asn Asn Asp Thr Leu Gly Ser Val Arg
 420 425 430
 Thr Glu Phe Met Asn Pro His Leu Ile Ser Val Arg Ile Asn Glu Arg
 435 440 445
 Cys Gln Arg Gly Thr Glu Asp Asn Lys Lys Leu Ala Tyr Leu Ile Asp
 450 455 460
 Ile Lys Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly
 465 470 475 480
 Thr Val Ser His Glu Ser Arg Val Asp Trp Leu Glu Leu Asn Glu Thr
 485 490 495
 Gly His Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr
 500 505 510
 Asp Ile Glu Ser Cys Ser Lys Thr Met Ile Leu Asn Phe Cys Ser Tyr
 515 520 525
 Met Gln Trp Val Pro Gly Ser Asp Val Leu Val Ala Gln Asn Arg Asn
 530 535 540
 Ser Leu Cys Val Trp Tyr Asn Ile Glu Ala Pro Glu Arg Val Thr Met
 545 550 555 560
 Phe Thr Ile Arg Gly Asp Val Ile Gly Leu Glu Arg Gly Gly Gly Lys
 565 570 575
 Thr Glu Val Met Val Met Glu Gly Val Thr Thr Val Ala Tyr Thr Leu
 580 585 590
 Asp Glu Gly Leu Ile Glu Phe Gly Thr Ala Ile Asp Asp Gly Asn Tyr
 595 600 605
 Ile Arg Ala Thr Ala Phe Leu Glu Thr Leu Glu Met Thr Pro Glu Thr
 610 615 620
 Glu Ala Met Trp Lys Thr Leu Ser Lys Leu Ala Leu Glu Ala Arg Gln
 625 630 635 640
 Leu His Ile Ala Glu Arg Cys Phe Ser Ala Leu Gly Gln Val Ala Lys
 645 650 655
 Ala Arg Phe Leu His Glu Thr Asn Glu Ile Ala Asp Gln Val Ser Arg
 660 665 670
 Glu Tyr Gly Gly Glu Gly Thr Asp Phe Tyr Gln Val Arg Ala Arg Leu
 675 680 685
 Ala Met Leu Glu Lys Asn Tyr Lys Leu Ala Glu Met Ile Phe Leu Glu
 690 695 700
 Gln Asn Ala Val Glu Glu Ala Met Gly Met Tyr Gln Glu Leu His Arg
 705 710 715 720
 Trp Asp Glu Cys Ile Ala Val Ala Glu Ala Lys Gly His Pro Ala Leu
 725 730 735
 Glu Lys Leu Arg Arg Ser Tyr Tyr Gln Trp Leu Met Asp Thr Gln Gln
 740 745 750
 Glu Glu Arg Ala Gly Glu Leu Gln Glu Ser Gln Gly Asp Gly Leu Ala
 755 760 765

Ala	Ile	Ser	Leu	Tyr	Leu	Lys	Ala	Gly	Leu	Pro	Ala	Lys	Ala	Ala	Arg
770						775					780				
Leu	Val	Leu	Thr	Arg	Glu	Glu	Leu	Leu	Ala	Asn	Thr	Glu	Leu	Val	Glu
785					790					795					800
His	Ile	Thr	Ala	Ala	Leu	Ile	Lys	Gly	Glu	Leu	Tyr	Glu	Arg	Ala	Gly
				805					810					815	
Asp	Leu	Phe	Glu	Lys	Ile	His	Asn	Pro	Gln	Lys	Ala	Leu	Glu	Cys	Tyr
			820					825					830		
Arg	Lys	Gly	Asn	Ala	Phe	Met	Lys	Ala	Val	Glu	Leu	Ala	Arg	Leu	Ala
			835				840					845			
Phe	Pro	Val	Glu	Val	Val	Lys	Leu	Glu	Glu	Ala	Trp	Gly	Asp	His	Leu
850						855					860				
Val	Gln	Gln	Lys	Gln	Leu	Asp	Ala	Ala	Ile	Asn	His	Tyr	Ile	Glu	Ala
865					870					875					880
Arg	Cys	Ser	Ile	Lys	Ala	Ile	Glu	Ala	Ala	Leu	Gly	Ala	Arg	Gln	Trp
				885					890					895	
Lys	Lys	Ala	Ile	Tyr	Ile	Leu	Asp	Leu	Gln	Asp	Arg	Asn	Thr	Ala	Ser
			900					905					910		
Lys	Tyr	Tyr	Pro	Leu	Val	Ala	Gln	His	Tyr	Ala	Ser	Leu	Gln	Glu	Tyr
		915					920						925		
Glu	Ile	Ala	Glu	Glu	Leu	Tyr	Thr	Lys	Gly	Asp	Arg	Thr	Lys	Asp	Ala
		930					935				940				
Ile	Asp	Met	Tyr	Thr	Gln	Ala	Gly	Arg	Trp	Glu	Gln	Ala	His	Lys	Leu
945					950					955					960
Ala	Met	Lys	Cys	Met	Arg	Pro	Glu	Asp	Val	Ser	Val	Leu	Tyr	Ile	Thr
				965				970						975	
Gln	Ala	Gln	Glu	Met	Glu	Lys	Gln	Gly	Lys	Tyr	Arg	Glu	Ala	Glu	Arg
			980					985					990		
Leu	Tyr	Val	Thr	Val	Gln	Glu	Pro	Asp	Leu	Ala	Ile	Thr	Met	Tyr	Lys
		995					1000					1005			
Lys	His	Lys	Leu	Tyr	Asp	Asp	Met	Ile	Arg	Leu	Val	Gly	Lys	His	His
1010							1015					1020			
Pro	Asp	Leu	Leu	Ser	Asp	Thr	His	Leu	His	Leu	Gly	Lys	Glu	Leu	Glu
1025					1030					1035					1040
Ala	Glu	Gly	Arg	Leu	Gln	Glu	Ala	Glu	Tyr	His	Tyr	Leu	Glu	Ala	Gln
				1045						1050				1055	
Glu	Trp	Lys	Ala	Thr	Val	Asn	Met	Tyr	Arg	Ala	Ser	Gly	Leu	Trp	Glu
			1060					1065					1070		
Glu	Ala	Tyr	Arg	Val	Ala	Arg	Thr	Gln	Gly	Gly	Ala	Asn	Ala	His	Lys
		1075					1080					1085			
His	Val	Ala	Tyr	Leu	Trp	Ala	Lys	Ser	Leu	Gly	Gly	Glu	Ala	Ala	Val
		1090					1095					1100			
Arg	Leu	Leu	Asn	Lys	Leu	Gly	Leu	Leu	Glu	Ala	Ala	Val	Asp	His	Ala
1105					1110					1115				1120	
Ala	Asp	Asn	Cys	Ser	Phe	Glu	Phe	Ala	Phe	Glu	Leu	Ser	Arg	Leu	Ala
				1125					1130					1135	
Leu	Lys	His	Lys	Thr	Pro	Glu	Val	His	Leu	Lys	Tyr	Ala	Met	Phe	Leu
			1140					1145					1150		
Glu	Asp	Glu	Gly	Lys	Phe	Glu	Glu	Ala	Glu	Ala	Glu	Phe	Ile	Arg	Ala
		1155					1160					1165			
Gly	Lys	Pro	Lys	Glu	Ala	Val	Leu	Met	Phe	Val	His	Asn	Gln	Asp	Trp
		1170					1175					1180			
Glu	Ala	Ala	Gln	Arg	Val	Ala	Glu	Ala	His	Asp	Pro	Asp	Ser	Val	Ala
1185					1190					1195					1200
Glu	Val	Leu	Val	Gly	Gln	Ala	Arg	Gly	Ala	Leu	Glu	Glu	Lys	Asp	Phe
				1205					1210					1215	
Gln	Lys	Ala	Glu	Gly	Leu	Leu	Leu	Arg	Ala	Gln	Arg	Pro	Gly	Leu	Ala
			1220					1225					1230		
Leu	Asn	Tyr	Tyr	Lys	Glu	Ala	Gly	Leu	Trp	Ser	Asp	Ala	Leu	Arg	Ile
		1235					1240					1245			
Cys	Lys	Asp	Tyr	Val	Pro	Ser	Gln	Leu	Glu	Ala	Leu	Gln	Glu	Glu	Tyr
		1250					1255					1260			
Glu	Arg	Glu	Ala	Thr	Lys	Lys	Gly	Ala	Arg	Gly	Val	Glu	Gly	Phe	Val
1265					1270					1275					1280

Glu Gln Ala Arg His Trp Glu Gln Ala Gly Glu Tyr Ser Arg Ala Val
 1285 1290 1295
 Asp Cys Tyr Leu Lys Val Arg Asp Ser Gly Asn Ser Gly Leu Ala Glu
 1300 1305 1310
 Lys Cys Trp Met Lys Ala Ala Glu Leu Ser Ile Lys Phe Leu Pro Pro
 1315 1320 1325
 Gln Arg Asn Met Glu Val Val Leu Ala Val Gly Pro Gln Leu Ile Gly
 1330 1335 1340
 Ile Gly Lys His Ser Ala Ala Ala Glu Leu Tyr Leu Asn Leu Asp Leu
 1345 1350 1355 1360
 Val Lys Glu Ala Ile Asp Ala Phe Ile Glu Gly Glu Glu Trp Asn Lys
 1365 1370 1375
 Ala Lys Arg Val Ala Lys Glu Leu Asp Pro Arg Tyr Glu Asp Tyr Val
 1380 1385 1390
 Asp Gln His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val Asp Ser
 1395 1400 1405
 Leu Val Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln
 1410 1415 1420
 Gly Gln Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys
 1425 1430 1435 1440
 Ile Leu His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu
 1445 1450 1455
 Gly Ser Ser Ala Gln Ala Leu Ala Leu Tyr Val Gln His Gly Ala Pro
 1460 1465 1470
 Ala Asn Pro Gln Asn Phe Asn Ile Tyr Lys Arg Ile Phe Thr Asp Met
 1475 1480 1485
 Val Ser Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala
 1490 1495 1500
 Asp Leu Arg Asp Val Leu Phe Asn Leu Cys Glu Asn Leu Val Lys Ser
 1505 1510 1515 1520
 Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe Lys Thr Met Leu Leu
 1525 1530 1535
 Ile Ala His Tyr Tyr Ala Thr Arg Ser Ala Ala Gln Ser Val Lys Gln
 1540 1545 1550
 Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser Leu Leu Arg His Thr
 1555 1560 1565
 Gln Leu Leu Pro Val Asp Lys Ala Phe Tyr Glu Ala Gly Ile Ala Ala
 1570 1575 1580
 Lys Ala Val Gly Trp Asp Asn Met Ala Phe Ile Phe Leu Asn Arg Phe
 1585 1590 1595 1600
 Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr Leu Asp Gly Leu Asp
 1605 1610 1615
 His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe Glu Val Pro Leu Pro
 1620 1625 1630
 Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu Glu Val Arg Asp Trp
 1635 1640 1645
 Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu Gln Val Leu Pro Arg
 1650 1655 1660
 Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val Ala Ala Ser Thr Gly
 1665 1670 1675 1680
 Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr Pro Ile Leu Arg Asn
 1685 1690 1695
 Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala Asn Lys Asp Asn Trp
 1700 1705 1710
 Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His Ser Pro Val Cys Gln
 1715 1720 1725
 Asp Val Leu Lys Phe Ile Ser Gln Trp Cys Gly Gly Leu Pro Ser Thr
 1730 1735 1740
 Ser Phe Ser Phe Gln *
 1745 1749

<211> 765
 <212> PRT
 <213> Homo sapiens

<400> 1793

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Met Asn Glu Ala Lys Val Lys Glu Thr Leu Arg Arg Cys Gly Ala Ser
 1          5          10          15
Gly Asp Glu Cys Gly Arg Leu Gln Tyr Ala Leu Thr Cys Leu Arg Lys
          20          25          30
Val Thr Gly Leu Gly Gly Glu His Lys Glu Asp Ser Ser Trp Ser Ser
          35          40          45
Leu Asp Ala Arg Arg Glu Ser Gly Ser Gly Pro Ser Thr Asp Thr Leu
          50          55          60
Ser Ala Ala Ser Leu Pro Trp Pro Pro Gly Ser Ser Gln Leu Gly Arg
          65          70          75          80
Ala Gly Asn Ser Ala Gln Gly Pro Arg Ser Ile Ser Val Ser Ala Leu
          85          90          95
Pro Ala Ser Asp Ser Pro Thr Pro Ser Phe Ser Glu Gly Leu Ser Asp
          100          105          110
Thr Cys Ile Pro Leu His Ala Ser Gly Arg Leu Thr Pro Arg Ala Leu
          115          120          125
His Ser Phe Ile Thr Pro Pro Thr Thr Pro Gln Leu Arg Arg His Thr
          130          135          140
Lys Leu Lys Pro Pro Arg Thr Pro Pro Pro Ser Arg Lys Val Phe
          145          150          155          160
Gln Leu Leu Pro Ser Phe Pro Thr Leu Thr Arg Ser Lys Ser His Glu
          165          170          175          180
Ser Gln Leu Gly Asn Arg Ile Asp Asp Val Ser Ser Met Arg Phe Asp
          180          185          190
Leu Ser His Gly Ser Pro Gln Met Val Arg Arg Asp Ile Gly Leu Ser
          195          200          205
Val Thr His Arg Phe Ser Thr Lys Ser Trp Leu Ser Gln Val Cys His
          210          215          220
Val Cys Gln Lys Ser Met Ile Phe Gly Val Lys Cys Lys His Cys Arg
          225          230          235          240
Leu Lys Cys His Asn Lys Cys Thr Lys Glu Ala Pro Ala Cys Arg Ile
          245          250          255
Ser Phe Leu Pro Leu Thr Arg Leu Arg Arg Thr Glu Ser Val Pro Ser
          260          265          270
Asp Ile Asn Asn Pro Val Asp Arg Ala Ala Glu Pro His Phe Gly Thr
          275          280          285
Leu Pro Lys Ala Leu Thr Lys Lys Glu His Pro Pro Ala Met Asn His
          290          295          300
Leu Asp Ser Ser Ser Asn Pro Ser Ser Thr Thr Ser Ser Thr Pro Ser
          305          310          315          320
Ser Pro Ala Pro Phe Pro Thr Ser Ser Asn Pro Ser Ser Ala Thr Thr
          325          330          335
Pro Pro Asn Pro Ser Pro Gly Gln Arg Asp Ser Arg Phe Asn Phe Pro
          340          345          350
Ala Ala Tyr Phe Ile His His Arg Gln Gln Phe Ile Phe Pro Asp Ile
          355          360          365
Ser Ala Phe Ala His Ala Ala Pro Leu Pro Glu Ala Ala Asp Gly Thr
          370          375          380
Arg Leu Asp Asp Gln Pro Lys Ala Asp Val Leu Glu Ala His Glu Ala
          385          390          395          400
Glu Ala Glu Glu Pro Glu Ala Gly Lys Ser Glu Ala Glu Asp Asp Glu
          405          410          415
Asp Glu Val Asp Asp Leu Pro Ser Ser Arg Arg Pro Trp Arg Gly Pro
          420          425          430
Ile Ser Arg Lys Ala Ser Gln Thr Ser Val Tyr Leu Gln Glu Trp Asp
          435          440          445
Ile Pro Phe Glu Gln Val Glu Leu Gly Glu Pro Ile Gly Gln Gly Arg
          450          455          460

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Trp Gly Arg Val His Arg Gly Arg Trp His Gly Glu Val Ala Ile Arg
 465 470 475 480
 Leu Leu Glu Met Asp Gly His Asn Gln Asp His Leu Lys Leu Phe Lys
 485 490 495
 Lys Glu Val Met Asn Tyr Arg Gln Thr Arg His Glu Asn Val Val Leu
 500 505 510
 Phe Met Gly Ala Cys Met Asn Pro Pro His Leu Ala Ile Ile Thr Ser
 515 520 525
 Phe Cys Lys Gly Arg Thr Leu His Ser Phe Val Arg Asp Pro Lys Thr
 530 535 540
 Ser Leu Asp Ile Asn Lys Thr Arg Gln Ile Ala Gln Glu Ile Ile Lys
 545 550 555 560
 Gly Met Gly Tyr Leu His Ala Lys Gly Ile Val His Lys Asp Leu Lys
 565 570 575
 Ser Lys Asn Val Phe Tyr Asp Asn Gly Lys Val Val Ile Thr Asp Phe
 580 585 590
 Gly Leu Phe Gly Ile Ser Gly Val Val Arg Glu Gly Arg Glu Asn
 595 600 605
 Gln Leu Lys Leu Ser His Asp Trp Leu Cys Tyr Leu Ala Pro Glu Ile
 610 615 620
 Val Arg Glu Met Thr Pro Gly Lys Asp Glu Asp Gln Leu Pro Phe Ser
 625 630 635 640
 Lys Ala Ala Asp Val Tyr Ala Phe Gly Thr Val Trp Tyr Glu Leu Gln
 645 650 655
 Ala Arg Asp Trp Pro Leu Lys Asn Gln Ala Ala Glu Ala Ser Ile Trp
 660 665 670
 Gln Ile Gly Ser Gly Glu Gly Met Lys Arg Val Leu Thr Ser Val Ser
 675 680 685
 Leu Gly Lys Glu Val Ser Glu Ile Leu Ser Ala Cys Trp Ala Phe Asp
 690 695 700
 Leu Gln Glu Arg Pro Ser Phe Ser Leu Leu Met Asp Met Leu Glu Lys
 705 710 715 720
 Leu Pro Lys Leu Asn Arg Arg Leu Ser His Pro Gly His Phe Trp Lys
 725 730 735
 Ser Ala Asp Ile Asn Ser Ser Lys Val Val Pro Arg Phe Glu Arg Phe
 740 745 750
 Gly Leu Gly Val Leu Glu Ser Ser Asn Pro Lys Met *
 755 760 764

<210> 1794

<211> 309

<212> PRT

<213> Homo sapiens

<400> 1794

Met Ala His Tyr Ile Thr Phe Leu Cys Met Val Leu Val Leu Leu Leu
 1 5 10 15
 Gln Asn Ser Val Leu Ala Glu Asp Gly Glu Val Arg Ser Ser Cys Arg
 20 25 30
 Thr Ala Pro Thr Asp Leu Val Phe Ile Leu Asp Gly Ser Tyr Ser Val
 35 40 45
 Gly Pro Glu Asn Phe Glu Ile Val Lys Lys Trp Leu Val Asn Ile Thr
 50 55 60
 Lys Asn Phe Asp Ile Gly Pro Lys Phe Ile Gln Val Gly Val Val Gln
 65 70 75 80
 Tyr Ser Asp Tyr Pro Val Leu Glu Ile Pro Leu Gly Ser Tyr Asp Ser
 85 90 95
 Gly Glu His Leu Thr Ala Ala Val Glu Ser Ile Leu Tyr Leu Gly Gly
 100 105 110
 Asn Thr Lys Thr Gly Lys Ala Ile Gln Phe Ala Leu Asp Tyr Leu Phe
 115 120 125

Ala Lys Ser Ser Arg Phe Leu Thr Lys Ile Ala Val Val Leu Thr Asp
 130 135 140
 Gly Lys Ser Gln Asp Asp Val Lys Asp Ala Ala Gln Ala Ala Arg Asp
 145 150 155 160
 Ser Lys Ile Thr Leu Phe Ala Ile Gly Val Gly Ser Glu Thr Glu Asp
 165 170 175
 Ala Glu Leu Arg Ala Ile Ala Asn Lys Pro Ser Ser Thr Tyr Val Phe
 180 185 190
 Tyr Val Glu Asp Tyr Ile Ala Ile Ser Lys Ile Arg Glu Val Met Lys
 195 200 205
 Gln Lys Leu Cys Glu Glu Ser Val Cys Pro Thr Arg Ile Pro Val Ala
 210 215 220
 Ala Arg Asp Glu Arg Gly Phe Asp Ile Leu Leu Gly Leu Asp Val Asn
 225 230 235 240
 Lys Lys Val Lys Lys Arg Ile Gln Leu Ser Pro Lys Lys Ile Lys Gly
 245 250 255
 Tyr Glu Val Thr Ser Lys Val Asp Leu Ser Glu Leu Thr Ser Asn Val
 260 265 270
 Phe Pro Glu Gly Leu Pro Pro Ser Tyr Val Phe Val Ser Thr Gln Arg
 275 280 285
 Phe Lys Val Lys Lys Ile Trp Asp Leu Trp Arg Ile Leu Thr Ile Asp
 290 295 300
 Gly Cys His Lys *
 305 308

<210> 1795
 <211> 435
 <212> PRT
 <213> Homo sapiens

<400> 1795
 Met Asp Phe Asn Gly Val Gln Phe Val Cys Arg Asn Leu Leu Lys Val
 1 5 10 15
 Ser Met Phe Leu Asn Thr Leu Thr Pro Lys Phe Tyr Val Ala Leu Thr
 20 25 30
 Gly Thr Ser Ser Leu Ile Ser Gly Leu Ile Leu Ile Phe Glu Trp Trp
 35 40 45
 Tyr Phe Arg Lys Tyr Gly Thr Ser Phe Ile Glu Gln Val Ser Val Ser
 50 55 60
 His Leu Arg Pro Leu Leu Gly Gly Val Asp Asn Asn Ser Ser Asn Asn
 65 70 75 80
 Ser Asn Ser Ser Asn Gly Asp Ser Asp Ser Asn Arg Gln Ser Val Ser
 85 90 95
 Glu Cys Lys Val Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu
 100 105 110
 Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr
 115 120 125
 Asp Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp
 130 135 140
 Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg
 145 150 155 160
 Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu
 165 170 175
 Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala
 180 185 190
 Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu
 195 200 205
 Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr
 210 215 220
 Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala
 225 230 235 240

Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala
 245 250 255
 Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile
 260 265 270
 His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu
 275 280 285
 Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp
 290 295 300
 Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg
 305 310 315 320
 Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe
 325 330 335
 Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr
 340 345 350
 Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His
 355 360 365
 Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe
 370 375 380
 Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His
 385 390 395 400
 Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys
 405 410 415
 Leu Glu Gly Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys
 420 425 430
 Ala Ala *
 434

<210> 1796
 <211> 244
 <212> PRT
 <213> Homo sapiens

<400> 1796
 Met Ser Pro Tyr Gln Leu Asn Ala Tyr Ala Leu Ala Leu Thr Ala Val
 1 5 10 15
 Gly Glu Ile Ile Gln His Tyr Asp Ser Asp Lys Met Phe Pro Ala Leu
 20 25 30
 Gly Phe Gly Ala Lys Leu Pro Pro Asp Gly Arg Val Ser His Glu Phe
 35 40 45
 Pro Leu Asn Gly Asn Gln Glu Asn Pro Ser Cys Cys Gly Ile Asp Gly
 50 55 60
 Ile Leu Glu Ala Tyr His Arg Ser Leu Arg Thr Val Gln Leu Tyr Gly
 65 70 75 80
 Pro Thr Asn Phe Ala Pro Val Val Thr His Val Ala Arg Asn Ala Ala
 85 90 95
 Ala Val Gln Asp Gly Ser Gln Tyr Ser Val Leu Leu Ile Ile Thr Asp
 100 105 110
 Gly Val Ile Ser Asp Met Ala Gln Thr Lys Glu Ala Ile Val Asn Ala
 115 120 125
 Ala Lys Leu Pro Met Ser Ile Ile Val Gly Val Gly Gln Ala Glu
 130 135 140
 Phe Asp Ala Met Val Glu Leu Asp Gly Asp Asp Val Arg Ile Ser Ser
 145 150 155 160
 Arg Gly Lys Leu Ala Glu Arg Asp Ile Val Gln Phe Val Pro Phe Arg
 165 170 175
 Asp Tyr Val Asp Arg Thr Gly Asn His Val Leu Ser Met Ala Arg Leu
 180 185 190
 Ala Arg Asp Val Leu Ala Glu Ile Pro Asp Gln Leu Val Ser Tyr Met
 195 200 205
 Lys Ala Gln Gly Ile Arg Pro Arg Ser Pro Pro Ala Ala Pro Thr His
 210 215 220

Ser Pro Ser Gln Ser Pro Ala Arg Thr Pro Pro Ala Cys Pro Leu His
 225 230 235 240
 Thr His Ile *
 243

<210> 1797
 <211> 1093
 <212> PRT
 <213> Homo sapiens

<400> 1797
 Met Met Asp Ser Pro Lys Ile Gly Asn Gly Leu Pro Val Ile Gly Pro
 1 5 10 15
 Gly Thr Asp Ile Gly Ile Ser Ser Leu His Met Val Gly Tyr Leu Gly
 20 25 30
 Lys Asn Phe Asp Ser Ala Lys Val Pro Ser Asp Glu Tyr Cys Pro Ala
 35 40 45
 Cys Arg Glu Lys Gly Lys Leu Lys Ala Leu Lys Thr Tyr Arg Ile Ser
 50 55 60
 Phe Gln Glu Ser Ile Phe Leu Cys Glu Asp Leu Gln Cys Ile Tyr Pro
 65 70 75 80
 Leu Gly Ser Lys Ser Leu Asn Asn Leu Ile Ser Pro Asp Leu Glu Glu
 85 90 95
 Cys His Thr Pro His Lys Pro Gln Lys Arg Lys Ser Leu Glu Ser Ser
 100 105 110
 Tyr Lys Asp Ser Leu Leu Leu Ala Asn Ser Lys Lys Thr Arg Asn Tyr
 115 120 125
 Ile Ala Ile Asp Gly Gly Lys Val Leu Asn Ser Lys His Asn Gly Glu
 130 135 140
 Val Tyr Asp Glu Thr Ser Asn Leu Pro Asp Ser Ser Gly Gln Gln
 145 150 155 160
 Asn Pro Ile Arg Thr Ala Asp Ser Leu Glu Arg Asn Glu Ile Leu Glu
 165 170 175
 Ala Asp Thr Val Asp Met Ala Thr Thr Lys Asp Pro Ala Thr Val Asp
 180 185 190
 Val Ser Gly Thr Gly Arg Pro Ser Pro Gln Asn Glu Gly Cys Thr Ser
 195 200 205
 Lys Leu Glu Met Pro Leu Glu Ser Lys Cys Thr Ser Phe Pro Gln Ala
 210 215 220
 Leu Cys Val Gln Trp Lys Asn Ala Tyr Ala Leu Cys Trp Leu Asp Cys
 225 230 235 240
 Ile Leu Ser Ala Leu Val His Ser Glu Glu Leu Lys Asn Thr Val Thr
 245 250 255
 Gly Leu Cys Ser Lys Glu Glu Ser Ile Phe Trp Arg Leu Leu Thr Lys
 260 265 270
 Tyr Asn Gln Ala Asn Thr Leu Leu Tyr Thr Ser Gln Leu Ser Gly Val
 275 280 285
 Lys Asp Gly Asp Cys Lys Lys Leu Thr Ser Glu Ile Phe Ala Glu Ile
 290 295 300
 Glu Thr Cys Leu Asn Glu Val Arg Asp Glu Ile Phe Ile Ser Leu Gln
 305 310 315 320
 Pro Gln Leu Arg Cys Thr Leu Gly Asp Met Glu Ser Pro Val Phe Ala
 325 330 335
 Phe Pro Leu Leu Leu Lys Leu Glu Thr His Ile Glu Lys Leu Phe Leu
 340 345 350
 Tyr Ser Phe Ser Trp Asp Phe Glu Cys Ser Gln Cys Gly His Gln Tyr
 355 360 365
 Gln Asn Arg His Met Lys Ser Leu Val Thr Phe Thr Asn Val Ile Pro
 370 375 380
 Glu Trp His Pro Leu Asn Ala Ala His Phe Gly Pro Cys Asn Asn Cys
 385 390 395 400

Asn	Ser	Lys	Ser	Gln	Ile	Arg	Lys	Met	Val	Leu	Glu	Lys	Val	Ser	Pro	405	410	415
Ile	Phe	Met	Leu	His	Phe	Val	Glu	Gly	Leu	Pro	Gln	Asn	Asp	Leu	Gln	420	425	430
His	Tyr	Ala	Phe	His	Phe	Glu	Gly	Cys	Leu	Tyr	Gln	Ile	Thr	Ser	Val	435	440	445
Ile	Gln	Tyr	Arg	Ala	Asn	Asn	His	Phe	Ile	Thr	Trp	Ile	Leu	Asp	Ala	450	455	460
Asp	Gly	Ser	Trp	Leu	Glu	Cys	Asp	Asp	Leu	Lys	Gly	Pro	Cys	Ser	Glu	465	470	475
Arg	His	Lys	Lys	Phe	Glu	Val	Pro	Ala	Ser	Glu	Ile	His	Ile	Val	Ile	485	490	495
Trp	Glu	Arg	Lys	Ile	Ser	Gln	Val	Thr	Asp	Lys	Glu	Ala	Ala	Cys	Leu	500	505	510
Pro	Leu	Lys	Lys	Thr	Asn	Asp	Gln	His	Ala	Leu	Ser	Asn	Glu	Lys	Pro	515	520	525
Val	Ser	Leu	Thr	Ser	Cys	Ser	Val	Gly	Asp	Ala	Ala	Ser	Ala	Glu	Thr	530	535	540
Ala	Ser	Val	Thr	His	Pro	Lys	Asp	Ile	Ser	Val	Ala	Pro	Arg	Thr	Leu	545	550	555
Ser	Gln	Asp	Thr	Ala	Val	Thr	His	Gly	Asp	His	Leu	Leu	Ser	Gly	Pro	565	570	575
Lys	Gly	Leu	Val	Asp	Asn	Ile	Leu	Pro	Leu	Thr	Leu	Glu	Glu	Thr	Ile	580	585	590
Gln	Lys	Thr	Ala	Ser	Val	Ser	Gln	Leu	Asn	Ser	Glu	Ala	Phe	Leu	Leu	595	600	605
Glu	Asn	Lys	Pro	Val	Ala	Glu	Asn	Thr	Gly	Ile	Leu	Lys	Thr	Asn	Thr	610	615	620
Leu	Leu	Ser	Gln	Glu	Ser	Leu	Met	Ala	Ser	Ser	Val	Ser	Ala	Pro	Cys	625	630	635
Asn	Glu	Lys	Leu	Ile	Gln	Asp	Gln	Phe	Val	Asp	Ile	Ser	Phe	Pro	Ser	645	650	655
Gln	Val	Val	Asn	Thr	Asn	Met	Gln	Ser	Val	Gln	Leu	Asn	Thr	Glu	Asp	660	665	670
Thr	Val	Asn	Thr	Lys	Ser	Val	Asn	Asn	Thr	Asp	Ala	Thr	Gly	Leu	Ile	675	680	685
Gln	Gly	Val	Lys	Ser	Val	Glu	Ile	Glu	Lys	Asp	Ala	Gln	Leu	Lys	Gln	690	695	700
Phe	Leu	Thr	Pro	Lys	Thr	Glu	Gln	Leu	Lys	Pro	Glu	Arg	Val	Thr	Ser	705	710	715
Gln	Val	Ser	Asn	Leu	Lys	Lys	Lys	Glu	Thr	Thr	Ala	Asp	Ser	Gln	Thr	725	730	735
Thr	Thr	Ser	Lys	Ser	Leu	Gln	Asn	Gln	Ser	Leu	Lys	Glu	Asn	Gln	Lys	740	745	750
Lys	Pro	Phe	Val	Gly	Ser	Trp	Val	Lys	Gly	Leu	Ile	Ser	Arg	Gly	Ala	755	760	765
Ser	Phe	Met	Pro	Leu	Cys	Val	Ser	Ala	His	Asn	Arg	Asn	Thr	Ile	Thr	770	775	780
Asp	Leu	Gln	Pro	Ser	Val	Lys	Gly	Val	Asn	Asn	Phe	Gly	Gly	Phe	Lys	785	790	795
Thr	Lys	Gly	Ile	Asn	Gln	Lys	Ala	Ser	His	Val	Ser	Lys	Lys	Ala	Arg	805	810	815
Lys	Ser	Ala	Ser	Lys	Pro	Pro	Pro	Ile	Ser	Lys	Pro	Pro	Ala	Gly	Pro	820	825	830
Pro	Ser	Ser	Asn	Gly	Thr	Ala	Ala	His	Pro	His	Ala	His	Ala	Ala	Ser	835	840	845
Glu	Val	Leu	Glu	Lys	Ser	Gly	Ser	Thr	Ser	Cys	Gly	Ala	Gln	Leu	Asn	850	855	860
His	Ser	Ser	Tyr	Gly	Asn	Gly	Ile	Ser	Ser	Ala	Asn	His	Glu	Asp	Leu	865	870	875
Val	Glu	Gly	Gln	Ile	His	Lys	Leu	Arg	Leu	Lys	Leu	Arg	Lys	Lys	Leu	885	890	895
Lys	Ala	Glu	Lys	Lys	Lys	Leu	Ala	Ala	Leu	Met	Ser	Ser	Pro	Gln	Ser	900	905	910

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Arg Thr Val Arg Ser Glu Asn Leu Glu Gln Val Pro Gln Asp Gly Ser
   915           920           925
Pro Asn Asp Cys Glu Ser Ile Glu Asp Leu Leu Asn Glu Leu Pro Tyr
   930           935           940
Pro Ile Asp Ile Ala Asn Glu Ser Ala Cys Thr Thr Val Pro Gly Val
   945           950           955           960
Ser Leu Tyr Ser Ser Gln Thr His Glu Glu Ile Leu Ala Glu Leu Leu
           965           970           975
Ser Pro Thr Pro Val Ser Thr Glu Leu Ser Glu Asn Gly Glu Gly Asp
           980           985           990
Phe Arg Tyr Leu Gly Met Gly Asp Ser His Ile Pro Pro Pro Val Pro
   995           1000           1005
Ser Glu Phe Asn Asp Val Ser Gln Asn Thr His Leu Arg Gln Asp His
   1010           1015           1020
Asn Tyr Cys Ser Pro Thr Lys Lys Asn Pro Cys Glu Val Gln Pro Asp
1025           1030           1035           1040
Ser Leu Thr Asn Asn Ala Cys Val Arg Thr Leu Asn Leu Glu Ser Pro
           1045           1050           1055
Met Lys Thr Asp Ile Phe Asp Glu Phe Phe Ser Ser Ser Ala Leu Asn
           1060           1065           1070
Ala Leu Ala Asn Asp Thr Leu Asp Leu Pro His Phe Asp Glu Tyr Leu
           1075           1080           1085
Phe Glu Asn Tyr *
   1090           1092

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<210> 1798
<211> 573
<212> PRT
<213> Homo sapiens

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<400> 1798
Met Asp Ala Lys Ser Leu Thr Ala Trp Ser Arg Thr Leu Val Thr Phe
  1           5           10           15
Lys Asp Val Phe Val Asp Phe Thr Arg Glu Glu Trp Lys Leu Leu Asp
           20           25           30
Thr Ala Gln Gln Ile Val Tyr Arg Asn Val Met Leu Glu Asn Tyr Lys
           35           40           45
Asn Leu Val Ser Leu Gly Tyr Gln Leu Thr Lys Pro Asp Val Ile Leu
           50           55           60
Arg Leu Glu Lys Gly Glu Glu Pro Trp Leu Val Glu Arg Glu Ile His
           65           70           75           80
Gln Glu Thr His Pro Asp Ser Glu Thr Ala Phe Glu Ile Lys Ser Ser
           85           90           95
Val Ser Ser Arg Ser Ile Phe Lys Asp Lys Gln Ser Cys Asp Ile Lys
           100           105           110
Met Glu Gly Met Ala Arg Asn Asp Leu Trp Tyr Leu Ser Leu Glu Glu
           115           120           125
Val Trp Lys Cys Arg Asp Gln Leu Asp Lys Tyr Gln Glu Asn Pro Glu
           130           135           140
Arg His Leu Arg Gln Val Ala Phe Thr Gln Lys Lys Val Leu Thr Gln
           145           150           155           160
Glu Arg Val Ser Glu Ser Gly Lys Tyr Gly Gly Asn Cys Leu Leu Pro
           165           170           175
Ala Gln Leu Val Leu Arg Glu Tyr Phe His Lys Arg Asp Ser His Thr
           180           185           190
Lys Ser Leu Lys His Asp Leu Val Leu Asn Gly His Gln Asp Ser Cys
           195           200           205
Ala Ser Asn Ser Asn Glu Cys Gly Gln Thr Phe Cys Gln Asn Ile His
           210           215           220
Leu Ile Gln Phe Ala Arg Thr His Thr Gly Asp Lys Ser Tyr Lys Cys
           225           230           235           240

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<210> 1799
<211> 440
<212> PRT
<213> Homo sapiens
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3679

Val Ser Ser Arg Ser Ile Phe Lys Asp Lys Gln Ser Cys Asp Ile Lys
 100 105 110
 Met Glu Gly Met Ala Arg Asn Asp Leu Trp Tyr Leu Ser Leu Glu Glu
 115 120 125
 Val Trp Lys Cys Arg Asp Gln Leu Asp Lys Tyr Gln Glu Asn Pro Glu
 130 135 140
 Arg His Leu Arg His Gln Leu Ile His Thr Gly Glu Lys Pro Tyr Glu
 145 150 155 160
 Cys Lys Glu Cys Gly Lys Ser Phe Ser Arg Ser Ser His Leu Ile Gly
 165 170 175
 His Gln Lys Thr His Thr Gly Glu Glu Pro Tyr Glu Cys Lys Glu Cys
 180 185 190
 Gly Lys Ser Phe Ser Trp Phe Ser His Leu Val Thr His Gln Arg Thr
 195 200 205
 His Thr Gly Asp Lys Leu Tyr Thr Cys Asn Gln Cys Gly Lys Ser Phe
 210 215 220
 Val His Ser Ser Arg Leu Ile Arg His Gln Arg Thr His Thr Gly Glu
 225 230 235 240
 Lys Pro Tyr Glu Cys Pro Glu Cys Gly Lys Ser Phe Arg Gln Ser Thr
 245 250 255
 His Leu Ile Leu His Gln Arg Thr His Val Arg Val Arg Pro Tyr Glu
 260 265 270
 Cys Asn Glu Cys Gly Lys Ser Tyr Ser Gln Arg Ser His Leu Val Val
 275 280 285
 His His Arg Ile His Thr Gly Leu Lys Pro Phe Glu Cys Lys Asp Cys
 290 295 300
 Gly Lys Cys Phe Ser Arg Ser Ser His Leu Tyr Ser His Gln Arg Thr
 305 310 315 320
 His Thr Gly Glu Lys Pro Tyr Glu Cys His Asp Cys Gly Lys Ser Phe
 325 330 335
 Ser Gln Ser Ser Ala Leu Ile Val His Gln Arg Ile His Thr Gly Glu
 340 345 350
 Lys Pro Tyr Glu Cys Cys Gln Cys Gly Lys Ala Phe Ile Arg Lys Asn
 355 360 365
 Asp Leu Ile Lys His Gln Arg Ile His Val Gly Glu Glu Thr Tyr Lys
 370 375 380
 Cys Asn Gln Cys Gly Ile Ile Phe Ser Gln Asn Ser Pro Phe Ile Val
 385 390 395 400
 His Gln Ile Ala His Thr Gly Glu Gln Phe Leu Thr Cys Asn Gln Cys
 405 410 415
 Gly Thr Ala Leu Val Asn Thr Ser Asn Leu Ile Gly Tyr Gln Thr Asn
 420 425 430
 His Ile Arg Glu Asn Ala Tyr *
 435 439

<210> 1800

<211> 613

<212> PRT

<213> Homo sapiens

<400> 1800

Met Ser Arg Lys Ile Ser Lys Glu Ser Lys Lys Val Asn Ile Ser Ser
 1 5 10 15
 Ser Leu Glu Ser Glu Asp Ile Ser Leu Glu Thr Thr Val Pro Thr Asp
 20 25 30
 Asp Ile Ser Ser Ser Glu Glu Arg Glu Gly Lys Val Arg Ile Thr Arg
 35 40 45
 Gln Leu Ile Glu Arg Lys Glu Leu Leu His Asn Ile Gln Leu Leu Lys
 50 55 60
 Ile Glu Leu Ser Gln Lys Thr Met Met Ile Asp Asn Leu Lys Val Asp
 65 70 75 80

Tyr Leu Thr Lys Ile Glu Glu Leu Glu Glu Lys Leu Asn Asp Ala Leu
 85 90 95
 His Gln Lys Gln Leu Leu Thr Leu Arg Leu Asp Asn Gln Leu Ala Phe
 100 105 110
 Gln Gln Lys Asp Ala Ser Lys Tyr Gln Glu Leu Met Lys Gln Glu Met
 115 120 125
 Glu Thr Ile Leu Leu Arg Gln Lys Gln Leu Glu Glu Thr Asn Leu Gln
 130 135 140
 Leu Arg Glu Lys Ala Gly Asp Val Arg Arg Ser Leu Arg Asp Phe Glu
 145 150 155 160
 Leu Thr Glu Glu Gln Tyr Ile Lys Leu Lys Ala Phe Pro Glu Asp Gln
 165 170 175
 Leu Ser Ile Pro Glu Tyr Val Ser Val Arg Phe Tyr Glu Leu Val Asn
 180 185 190
 Pro Leu Arg Lys Glu Ile Cys Glu Leu Gln Val Lys Lys Asn Ile Leu
 195 200 205
 Ala Glu Glu Leu Ser Thr Asn Lys Asn Gln Leu Lys Gln Leu Thr Glu
 210 215 220
 Thr Tyr Glu Glu Asp Arg Lys Asn Tyr Ser Glu Val Gln Ile Arg Cys
 225 230 235 240
 Gln Arg Leu Ala Leu Glu Leu Ala Asp Thr Lys Gln Leu Ile Gln Gln
 245 250 255
 Gly Asp Tyr Arg Gln Glu Asn Tyr Asp Lys Val Lys Ser Glu Arg Asp
 260 265 270
 Ala Leu Glu Gln Glu Val Ile Glu Leu Arg Arg Lys His Glu Ile Leu
 275 280 285
 Glu Ala Ser His Met Ile Gln Thr Lys Glu Arg Ser Glu Leu Ser Lys
 290 295 300
 Glu Val Val Thr Leu Glu Gln Thr Val Thr Leu Leu Gln Lys Asp Lys
 305 310 315 320
 Glu Tyr Leu Asn Arg Gln Asn Met Glu Leu Ser Val Arg Cys Ala His
 325 330 335
 Glu Glu Asp Arg Leu Glu Arg Leu Gln Ala Gln Leu Glu Glu Ser Lys
 340 345 350
 Lys Ala Arg Glu Glu Met Tyr Glu Lys Tyr Val Ala Ser Arg Asp His
 355 360 365
 Tyr Lys Thr Glu Tyr Glu Asn Lys Leu His Asp Glu Leu Glu Gln Ile
 370 375 380
 Arg Leu Lys Thr Asn Gln Glu Ile Asp Gln Leu Arg Asn Ala Ser Arg
 385 390 395 400
 Glu Met Tyr Glu Arg Glu Asn Arg Asn Leu Arg Glu Ala Arg Asp Asn
 405 410 415
 Ala Val Ala Glu Lys Glu Arg Ala Val Met Ala Glu Lys Asp Ala Leu
 420 425 430
 Glu Lys His Asp Gln Leu Leu Asp Arg Tyr Arg Glu Leu Gln Leu Ser
 435 440 445
 Thr Glu Ser Lys Val Thr Glu Phe Leu His Gln Ser Lys Leu Lys Ser
 450 455 460
 Phe Glu Ser Glu Arg Val Gln Leu Leu Gln Glu Glu Thr Ala Arg Asn
 465 470 475 480
 Leu Thr Gln Cys Gln Leu Glu Cys Glu Lys Tyr Gln Lys Lys Leu Glu
 485 490 495
 Val Leu Thr Lys Glu Phe Tyr Ser Leu Gln Ala Ser Ser Glu Lys Arg
 500 505 510
 Ile Thr Glu Leu Gln Ala Gln Asn Ser Glu His Gln Ala Arg Leu Asp
 515 520 525
 Ile Tyr Glu Lys Leu Glu Lys Glu Leu Asp Glu Ile Ile Met Gln Thr
 530 535 540
 Ala Glu Ile Glu Asn Glu Asp Glu Ala Glu Arg Val Leu Phe Ser Tyr
 545 550 555 560
 Gly Tyr Gly Ala Asn Val Pro Thr Thr Ala Lys Arg Arg Leu Lys Gln
 565 570 575
 Ser Val His Leu Ala Arg Arg Val Leu Gln Leu Glu Lys Gln Asn Ser
 580 585 590

Leu Ile Leu Lys Asp Leu Glu His Arg Lys Asp Gln Val Thr Gln Leu
 595 600 605
 Ser Pro Gly Ala *
 610 612

<210> 1801
 <211> 754
 <212> PRT
 <213> Homo sapiens

<400> 1801
 Met Lys Val Ile Gly Phe Lys Pro Glu Glu Ile Gln Thr Val Tyr Lys
 1 5 10 15
 Ile Leu Ala Ala Ile Leu His Leu Gly Asn Leu Lys Phe Val Val Asp
 20 25 30
 Gly Asp Thr Pro Leu Ile Glu Asn Gly Lys Val Val Ser Ile Ile Ala
 35 40 45
 Glu Leu Leu Ser Thr Lys Thr Asp Met Val Glu Lys Ala Leu Leu Tyr
 50 55 60
 Arg Thr Gly Ala Thr Gly Arg Asp Ile Ile Asp Lys Gln His Thr Glu
 65 70 75 80
 Gln Glu Ala Ser Tyr Gly Arg Asp Ala Phe Ala Lys Ala Ile Tyr Glu
 85 90 95
 Arg Leu Phe Cys Trp Ile Val Thr Arg Ile Asn Asp Ile Ile Glu Val
 100 105 110
 Lys Asn Tyr Asp Thr Thr Ile His Gly Lys Asn Thr Val Ile Gly Val
 115 120 125
 Leu Asp Ile Tyr Gly Phe Glu Ile Phe Asp Asn Asn Ser Phe Glu Gln
 130 135 140
 Phe Cys Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Leu Phe Ile Gln
 145 150 155 160
 Leu Val Leu Lys Gln Glu Gln Glu Glu Tyr Gln Arg Glu Gly Ile Pro
 165 170 175
 Trp Lys His Ile Asp Tyr Phe Asn Asn Gln Ile Ile Val Asp Leu Val
 180 185 190
 Glu Gln Gln His Lys Gly Ile Ile Ala Ile Leu Asp Asp Ala Cys Met
 195 200 205
 Asn Val Gly Lys Val Thr Asp Glu Met Phe Leu Glu Ala Leu Asn Ser
 210 215 220
 Lys Leu Gly Lys His Ala His Phe Ser Ser Arg Lys Leu Cys Ala Ser
 225 230 235 240
 Asp Lys Ile Leu Glu Phe Asp Arg Asp Phe Arg Ile Arg His Tyr Ala
 245 250 255
 Gly Asp Val Val Tyr Ser Val Ile Gly Phe Ile Asp Lys Asn Lys Asp
 260 265 270
 Thr Leu Phe Gln Asp Phe Lys Arg Leu Met Tyr Asn Ser Ser Asn Pro
 275 280 285
 Val Leu Lys Asn Met Trp Pro Glu Gly Lys Leu Ser Ile Thr Glu Val
 290 295 300
 Thr Lys Arg Pro Leu Thr Ala Ala Thr Leu Phe Lys Asn Ser Met Ile
 305 310 315 320
 Ala Leu Val Asp Asn Leu Ala Ser Lys Glu Pro Tyr Tyr Val Arg Cys
 325 330 335
 Ile Lys Pro Asn Asp Lys Lys Ser Pro Gln Ile Phe Asp Asp Glu Arg
 340 345 350
 Cys Arg His Gln Val Glu Tyr Leu Gly Leu Leu Glu Asn Val Arg Val
 355 360 365
 Arg Arg Ala Gly Phe Ala Phe Arg Gln Thr Tyr Glu Lys Phe Leu His
 370 375 380
 Arg Tyr Lys Met Ile Ser Glu Phe Thr Trp Pro Asn His Asp Leu Pro
 385 390 395 400

Ser Asp Lys Glu Ala Val Lys Lys Leu Ile Glu Arg Cys Gly Phe Gln
 405 410 415
 Asp Asp Val Ala Tyr Gly Lys Thr Lys Ile Phe Ile Arg Thr Pro Arg
 420 425 430
 Thr Leu Phe Thr Leu Glu Glu Leu Arg Ala Gln Met Leu Ile Arg Ile
 435 440 445
 Val Leu Phe Leu Gln Lys Val Trp Arg Gly Thr Leu Ala Arg Met Arg
 450 455 460
 Tyr Lys Arg Thr Lys Ala Ala Leu Thr Ile Ile Arg Tyr Tyr Arg Arg
 465 470 475 480
 Tyr Lys Val Lys Ser Tyr Ile His Glu Val Ala Arg Arg Phe His Gly
 485 490 495
 Val Lys Thr Met Arg Asp Tyr Gly Lys His Val Lys Trp Pro Ser Pro
 500 505 510
 Pro Lys Val Leu Arg Arg Phe Glu Glu Ala Leu Gln Thr Ile Phe Asn
 515 520 525
 Arg Trp Arg Ala Ser Gln Leu Ile Lys Ser Ile Pro Ala Ser Asp Leu
 530 535 540
 Pro Gln Val Arg Ala Lys Val Ala Ala Val Glu Met Leu Lys Gly Gln
 545 550 555 560
 Arg Ala Asp Leu Gly Leu Gln Arg Ala Trp Glu Gly Asn Tyr Leu Ala
 565 570 575
 Ser Lys Pro Asp Thr Pro Gln Thr Ser Gly Thr Phe Val Pro Val Ala
 580 585 590
 Asn Glu Leu Lys Arg Lys Asp Lys Tyr Met Asn Val Leu Phe Ser Cys
 595 600 605
 His Val Arg Lys Val Asn Arg Phe Ser Lys Val Glu Asp Arg Ala Ile
 610 615 620
 Phe Val Thr Asp Arg His Leu Tyr Lys Met Asp Pro Thr Lys Gln Tyr
 625 630 635 640
 Lys Val Met Lys Thr Ile Pro Leu Tyr Asn Leu Thr Gly Leu Ser Val
 645 650 655
 Ser Asn Gly Lys Asp Gln Leu Val Val Phe His Thr Lys Asp Asn Lys
 660 665 670
 Asp Leu Ile Val Cys Leu Phe Ser Lys Gln Pro Thr His Glu Ser Arg
 675 680 685
 Ile Gly Glu Leu Val Gly Val Leu Val Asn His Phe Lys Ser Glu Lys
 690 695 700
 Arg His Leu Gln Val Asn Val Thr Asn Pro Val Gln Cys Ser Leu His
 705 710 715 720
 Gly Lys Lys Cys Thr Val Ser Val Glu Thr Arg Leu Asn Gln Pro Gln
 725 730 735
 Pro Asp Phe Thr Lys Asn Arg Ser Gly Phe Ile Leu Ser Val Pro Gly
 740 745 750
 Asn *
 753

<210> 1802
 <211> 2167
 <212> PRT
 <213> Homo sapiens

<400> 1802
 Met Gln Ile Glu Gln Leu Glu Arg Tyr Ile Gln Arg Tyr Leu Val Tyr
 1 5 10 15
 Ala Ile Leu Trp Ser Leu Ser Gly Asp Ser Arg Leu Lys Met Arg Ala
 20 25 30
 Glu Leu Gly Glu Tyr Ile Arg Arg Ile Thr Thr Val Pro Leu Pro Thr
 35 40 45
 Ala Pro Asn Ile Pro Ile Ile Asp Tyr Glu Val Ser Ile Ser Gly Glu
 50 55 60

Trp	Ser	Pro	Trp	Gln	Ala	Lys	Val	Pro	Gln	Ile	Glu	Val	Glu	Thr	His
65					70					75					80
Lys	Val	Ala	Ala	Pro	Asp	Val	Val	Val	Pro	Thr	Leu	Asp	Thr	Val	Arg
				85					90					95	
His	Glu	Ala	Leu	Leu	Tyr	Thr	Trp	Leu	Ala	Glu	His	Lys	Pro	Leu	Val
			100					105					110		
Leu	Cys	Gly	Pro	Pro	Gly	Ser	Gly	Lys	Thr	Met	Thr	Leu	Phe	Ser	Ala
		115					120					125			
Leu	Arg	Ala	Leu	Pro	Asp	Met	Glu	Val	Val	Gly	Leu	Asn	Phe	Ser	Ser
	130					135					140				
Ala	Thr	Thr	Pro	Glu	Leu	Leu	Lys	Thr	Phe	Asp	His	Tyr	Cys	Glu	
145					150				155					160	
Tyr	Arg	Arg	Thr	Pro	Asn	Gly	Val	Val	Leu	Ala	Pro	Val	Gln	Leu	Gly
				165					170					175	
Lys	Trp	Leu	Val	Leu	Phe	Cys	Asp	Glu	Ile	Asn	Leu	Pro	Asp	Met	Asp
			180					185					190		
Lys	Tyr	Gly	Thr	Gln	Arg	Val	Ile	Ser	Phe	Ile	Arg	Gln	Met	Val	Glu
		195					200					205			
His	Gly	Gly	Phe	Tyr	Arg	Thr	Ser	Asp	Gln	Thr	Trp	Val	Lys	Leu	Glu
	210					215						220			
Arg	Ile	Gln	Phe	Val	Gly	Ala	Cys	Asn	Pro	Pro	Thr	Asp	Pro	Gly	Arg
225					230					235				240	
Lys	Pro	Leu	Ser	His	Arg	Phe	Leu	Arg	His	Val	Pro	Val	Val	Tyr	Val
				245					250					255	
Asp	Tyr	Pro	Gly	Pro	Ala	Ser	Leu	Thr	Gln	Ile	Tyr	Gly	Thr	Phe	Asn
			260					265					270		
Arg	Ala	Met	Leu	Arg	Leu	Ile	Pro	Ser	Leu	Arg	Thr	Tyr	Ala	Glu	Pro
		275					280					285			
Leu	Thr	Ala	Ala	Met	Val	Glu	Phe	Tyr	Thr	Met	Ser	Gln	Glu	Arg	Phe
	290					295					300				
Thr	Gln	Asp	Thr	Gln	Pro	His	Tyr	Ile	Tyr	Ser	Pro	Arg	Glu	Met	Thr
305					310					315				320	
Arg	Trp	Val	Arg	Gly	Ile	Phe	Glu	Ala	Leu	Arg	Pro	Leu	Glu	Thr	Leu
				325					330					335	
Pro	Val	Glu	Gly	Leu	Ile	Arg	Ile	Trp	Ala	His	Glu	Ala	Leu	Arg	Leu
			340					345					350		
Phe	Gln	Asp	Arg	Leu	Val	Glu	Asp	Glu	Glu	Arg	Arg	Trp	Thr	Asp	Glu
		355					360					365			
Asn	Ile	Asp	Thr	Val	Ala	Leu	Lys	His	Phe	Pro	Asn	Ile	Asp	Arg	Glu
	370					375					380				
Lys	Ala	Met	Ser	Arg	Pro	Ile	Leu	Tyr	Ser	Asn	Trp	Leu	Ser	Lys	Asp
385					390					395				400	
Tyr	Ile	Pro	Val	Asp	Gln	Glu	Glu	Leu	Arg	Asp	Tyr	Val	Lys	Ala	Arg
				405					410					415	
Leu	Lys	Val	Phe	Tyr	Glu	Glu	Glu	Leu	Asp	Val	Pro	Leu	Val	Leu	Phe
			420					425					430		
Asn	Glu	Val	Leu	Asp	His	Val	Leu	Arg	Ile	Asp	Arg	Ile	Phe	Arg	Gln
			435				440					445			
Pro	Gln	Gly	His	Leu	Leu	Leu	Ile	Gly	Val	Ser	Gly	Ala	Gly	Lys	Thr
	450					455					460				
Thr	Leu	Ser	Arg	Phe	Val	Ala	Trp	Met	Asn	Gly	Leu	Ser	Val	Tyr	Gln
465					470					475				480	
Ile	Lys	Val	His	Arg	Lys	Tyr	Thr	Gly	Glu	Asp	Phe	Asp	Glu	Asp	Leu
				485					490					495	
Arg	Thr	Val	Leu	Arg	Arg	Ser	Gly	Cys	Lys	Asn	Glu	Lys	Ile	Ala	Phe
			500					505					510		
Ile	Met	Asp	Glu	Ser	Asn	Val	Leu	Asp	Ser	Gly	Phe	Leu	Glu	Arg	Met
		515					520					525			
Asn	Thr	Leu	Leu	Ala	Asn	Gly	Glu	Val	Pro	Gly	Leu	Phe	Glu	Gly	Asp
					530		535				540				
Glu	Tyr	Ala	Thr	Leu	Met	Thr	Gln	Cys	Lys	Glu	Gly	Ala	Gln	Lys	Glu
545					550					555				560	
Gly	Leu	Met	Leu	Asp	Ser	His	Glu	Glu	Leu	Tyr	Lys	Trp	Phe	Thr	Ser
				565					570					575	

Gln Val Ile Arg Asn Leu His Val Val Phe Thr Met Asn Pro Ser Ser
 580 585 590
 Glu Gly Leu Lys Asp Arg Ala Ala Thr Ser Pro Ala Leu Phe Asn Arg
 595 600 605
 Cys Val Leu Asn Trp Phe Gly Asp Trp Ser Thr Glu Ala Leu Tyr Gln
 610 615 620
 Val Gly Lys Glu Phe Thr Ser Lys Met Asp Leu Glu Lys Pro Asn Tyr
 625 630 635 640
 Ile Val Pro Asp Tyr Met Pro Val Val Tyr Asp Lys Leu Pro Gln Pro
 645 650 655
 Pro Ser His Arg Glu Ala Ile Val Asn Ser Cys Val Phe Val His Gln
 660 665 670
 Thr Leu His Gln Ala Asn Ala Arg Leu Ala Lys Arg Gly Gly Arg Thr
 675 680 685
 Met Ala Ile Thr Pro Arg His Tyr Leu Asp Phe Ile Asn His Tyr Ala
 690 695 700
 Asn Leu Phe His Glu Lys Arg Ser Glu Leu Glu Glu Gln Gln Met His
 705 710 715 720
 Leu Asn Val Gly Leu Arg Lys Ile Lys Glu Thr Val Asp Gln Val Glu
 725 730 735
 Glu Leu Arg Arg Asp Leu Arg Ile Lys Ser Gln Glu Leu Glu Val Lys
 740 745 750
 Asn Ala Ala Ala Asn Asp Lys Leu Lys Lys Met Val Lys Asp Gln Gln
 755 760 765
 Glu Ala Glu Lys Lys Lys Val Met Ser Gln Glu Ile Gln Glu Gln Leu
 770 775 780
 His Lys Gln Gln Glu Val Ile Ala Asp Lys Gln Met Ser Val Lys Glu
 785 790 795 800
 Asp Leu Asp Lys Val Glu Pro Ala Val Ile Glu Ala Gln Asn Ala Val
 805 810 815
 Lys Ser Ile Lys Lys Gln His Leu Val Glu Val Arg Ser Met Ala Asn
 820 825 830
 Pro Pro Ala Ala Val Lys Leu Ala Leu Glu Ser Ile Cys Leu Leu Leu
 835 840 845
 Gly Glu Ser Thr Thr Asp Trp Lys Gln Ile Arg Ser Ile Ile Met Arg
 850 855 860
 Glu Asn Phe Ile Pro Thr Ile Val Asn Phe Ser Ala Glu Glu Ile Ser
 865 870 875 880
 Asp Ala Ile Arg Glu Lys Met Lys Lys Asn Tyr Met Ser Asn Pro Ser
 885 890 895
 Tyr Asn Tyr Glu Ile Val Asn Arg Ala Ser Leu Ala Cys Gly Pro Met
 900 905 910
 Val Lys Trp Ala Ile Ala Gln Leu Asn Tyr Ala Asp Met Leu Lys Arg
 915 920 925
 Val Glu Pro Leu Arg Asn Glu Leu Gln Lys Leu Glu Asp Asp Ala Lys
 930 935 940
 Asp Asn Gln Gln Lys Ala Asn Glu Val Glu Gln Met Ile Arg Asp Leu
 945 950 955 960
 Glu Ala Ser Ile Ala Arg Tyr Lys Glu Glu Tyr Ala Val Leu Ile Ser
 965 970 975
 Glu Ala Gln Ala Ile Lys Ala Asp Leu Ala Ala Val Glu Ala Lys Val
 980 985 990
 Asn Arg Ser Thr Ala Leu Leu Lys Ser Leu Ser Ala Glu Arg Glu Arg
 995 1000 1005
 Trp Glu Lys Thr Ser Glu Thr Phe Lys Asn Gln Met Ser Thr Ile Ala
 1010 1015 1020
 Gly Asp Cys Leu Leu Ser Ala Ala Phe Ile Ala Tyr Ala Gly Tyr Phe
 1025 1030 1035 1040
 Asp Gln Gln Met Arg Gln Asn Leu Phe Thr Thr Trp Ser His His Leu
 1045 1050 1055
 Gln Gln Ala Asn Ile Gln Phe Arg Thr Asp Ile Ala Arg Thr Glu Tyr
 1060 1065 1070
 Leu Ser Asn Ala Asp Glu Arg Leu Arg Trp Gln Ala Ser Ser Leu Pro
 1075 1080 1085

Ala Asp Asp Leu Cys Thr Glu Asn Ala Ile Met Leu Lys Arg Phe Asn
 1090 1095 1100
 Arg Tyr Pro Leu Ile Ile Asp Pro Ser Gly Gln Ala Thr Glu Phe Ile
 1105 1110 1115 1120
 Met Asn Glu Tyr Lys Asp Arg Lys Ile Thr Arg Thr Ser Phe Leu Asp
 1125 1130 1135
 Asp Ala Phe Arg Lys Asn Leu Glu Ser Ala Leu Arg Phe Gly Asn Pro
 1140 1145 1150
 Leu Leu Val Gln Asp Val Glu Ser Tyr Asp Pro Val Leu Asn Pro Val
 1155 1160 1165
 Leu Asn Arg Glu Val Arg Arg Thr Gly Gly Arg Val Leu Ile Thr Leu
 1170 1175 1180
 Gly Asp Gln Asp Ile Asp Leu Ser Pro Ser Phe Val Ile Phe Leu Ser
 1185 1190 1195 1200
 Thr Arg Asp Pro Thr Val Glu Phe Pro Pro Asp Leu Cys Ser Arg Val
 1205 1210 1215
 Thr Phe Val Asn Phe Thr Val Thr Arg Ser Ser Leu Gln Ser Gln Cys
 1220 1225 1230
 Leu Asn Glu Val Leu Lys Ala Glu Arg Pro Asp Val Asp Glu Lys Arg
 1235 1240 1245
 Ser Asp Leu Leu Lys Leu Gln Gly Glu Phe Gln Leu Arg Leu Arg Gln
 1250 1255 1260
 Leu Glu Lys Ser Leu Leu Gln Ala Leu Asn Glu Val Lys Gly Arg Ile
 1265 1270 1275 1280
 Leu Asp Asp Asp Thr Ile Ile Thr Thr Leu Glu Asn Leu Lys Arg Glu
 1285 1290 1295
 Ala Ala Glu Val Thr Arg Lys Val Glu Glu Thr Asp Ile Val Met Gln
 1300 1305 1310
 Glu Val Glu Thr Val Ser Gln Gln Tyr Leu Pro Leu Ser Thr Ala Cys
 1315 1320 1325
 Ser Ser Ile Tyr Phe Thr Met Glu Ser Leu Lys Gln Ile His Phe Leu
 1330 1335 1340
 Tyr Gln Tyr Ser Leu Gln Phe Phe Leu Asp Ile Tyr His Asn Val Leu
 1345 1350 1355 1360
 Tyr Glu Asn Pro Asn Leu Lys Gly Val Thr Asp His Thr Gln Arg Leu
 1365 1370 1375
 Ser Ile Ile Thr Lys Asp Leu Phe Gln Val Ala Phe Asn Arg Val Ala
 1380 1385 1390
 Arg Gly Met Leu His Gln Asp His Ile Thr Phe Ala Met Leu Leu Ala
 1395 1400 1405
 Arg Ile Lys Leu Lys Gly Thr Val Gly Glu Pro Thr Tyr Asp Ala Glu
 1410 1415 1420
 Phe Gln His Phe Leu Arg Gly Asn Glu Ile Val Leu Ser Ala Gly Ser
 1425 1430 1435 1440
 Thr Pro Arg Ile Gln Gly Leu Thr Val Glu Gln Ala Glu Ala Val Val
 1445 1450 1455
 Arg Leu Ser Cys Leu Pro Ala Phe Lys Asp Leu Ile Ala Lys Val Gln
 1460 1465 1470
 Ala Asp Glu Gln Phe Gly Ile Trp Leu Asp Ser Ser Ser Pro Glu Gln
 1475 1480 1485
 Thr Val Pro Tyr Leu Trp Ser Glu Glu Thr Pro Ala Thr Pro Ile Gly
 1490 1495 1500
 Gln Ala Ile His Arg Leu Leu Leu Ile Gln Ala Phe Arg Pro Asp Arg
 1505 1510 1515 1520
 Leu Leu Ala Met Ala His Met Phe Val Ser Thr Asn Leu Gly Glu Ser
 1525 1530 1535
 Phe Met Ser Ile Met Glu Gln Pro Leu Asp Leu Thr His Ile Val Gly
 1540 1545 1550
 Thr Glu Val Lys Pro Asn Thr Pro Val Leu Met Cys Ser Val Pro Gly
 1555 1560 1565
 Tyr Asp Ala Ser Gly His Val Glu Asp Leu Ala Ala Glu Gln Asn Thr
 1570 1575 1580
 Gln Ile Thr Ser Ile Ala Ile Gly Ser Ala Glu Gly Phe Asn Gln Ala
 1585 1590 1595 1600

Asp Lys Ala Ile Asn Thr Ala Val Lys Ser Gly Arg Trp Val Met Leu
 1605 1610 1615
 Lys Asn Val His Leu Ala Pro Gly Trp Leu Met Gln Leu Glu Lys Lys
 1620 1625 1630
 Leu His Ser Leu Gln Pro His Ala Cys Phe Arg Leu Phe Leu Thr Met
 1635 1640 1645
 Glu Ile Asn Pro Lys Val Pro Val Asn Leu Leu Arg Ala Gly Arg Ile
 1650 1655 1660
 Phe Val Phe Glu Pro Pro Gly Val Lys Ala Asn Met Leu Arg Thr
 1665 1670 1675 1680
 Phe Ser Ser Ile Pro Val Ser Arg Ile Cys Lys Ser Pro Asn Glu Arg
 1685 1690 1695
 Ala Arg Leu Tyr Phe Leu Leu Ala Trp Phe His Ala Ile Ile Gln Glu
 1700 1705 1710
 Arg Leu Arg Tyr Ala Pro Leu Gly Trp Ser Lys Lys Tyr Glu Phe Gly
 1715 1720 1725
 Glu Ser Asp Leu Arg Ser Ala Cys Asp Thr Val Asp Thr Trp Leu Asp
 1730 1735 1740
 Asp Thr Ala Lys Gly Arg Gln Asn Ile Ser Pro Asp Lys Ile Pro Trp
 1745 1750 1755 1760
 Ser Ala Leu Lys Thr Leu Met Ala Gln Ser Ile Tyr Gly Gly Arg Val
 1765 1770 1775
 Asp Asn Glu Phe Asp Gln Arg Leu Leu Asn Thr Phe Leu Glu Arg Leu
 1780 1785 1790
 Phe Thr Thr Arg Ser Phe Asp Ser Glu Phe Lys Leu Ala Cys Lys Val
 1795 1800 1805
 Asp Gly His Lys Asp Ile Gln Met Pro Asp Gly Ile Arg Arg Glu Glu
 1810 1815 1820
 Phe Val Gln Trp Val Glu Leu Leu Pro Asp Thr Gln Thr Pro Ser Trp
 1825 1830 1835 1840
 Leu Gly Leu Pro Asn Ala Glu Arg Val Leu Leu Thr Thr Gln Gly
 1845 1850 1855
 Val Asp Met Ile Ser Lys Met Leu Lys Met Gln Met Leu Glu Asp Glu
 1860 1865 1870
 Asp Asp Leu Ala Tyr Ala Glu Thr Glu Lys Lys Thr Arg Thr Asp Ser
 1875 1880 1885
 Thr Ser Asp Gly Arg Pro Ala Trp Met Arg Thr Leu His Thr Thr Ala
 1890 1895 1900
 Ser Asn Trp Leu His Leu Ile Pro Gln Thr Leu Ser His Leu Lys Arg
 1905 1910 1915 1920
 Thr Val Glu Asn Ile Lys Asp Pro Leu Phe Arg Phe Phe Glu Arg Glu
 1925 1930 1935
 Val Lys Met Gly Ala Lys Leu Leu Gln Asp Val Arg Gln Asp Leu Ala
 1940 1945 1950
 Asp Val Val Gln Val Cys Glu Gly Lys Lys Lys Gln Thr Asn Tyr Leu
 1955 1960 1965
 Arg Thr Leu Ile Asn Glu Leu Val Lys Gly Ile Leu Pro Arg Ser Trp
 1970 1975 1980
 Ser His Tyr Thr Val Pro Ala Gly Met Thr Val Ile Gln Trp Val Ser
 1985 1990 1995 2000
 Asp Phe Ser Glu Arg Ile Lys Gln Leu Gln Asn Ile Ser Leu Ala Ala
 2005 2010 2015
 Ala Ser Gly Gly Ala Lys Glu Leu Lys Asn Ile His Val Cys Leu Gly
 2020 2025 2030
 Gly Leu Phe Val Pro Glu Ala Tyr Ile Thr Ala Thr Arg Gln Tyr Val
 2035 2040 2045
 Ala Gln Ala Asn Ser Trp Ser Leu Glu Glu Leu Cys Leu Glu Val Asn
 2050 2055 2060
 Val Thr Thr Ser Gln Gly Ala Thr Leu Asp Ala Cys Ser Phe Gly Val
 2065 2070 2075 2080
 Thr Gly Leu Lys Leu Gln Gly Ala Thr Cys Asn Asn Asn Lys Leu Ser
 2085 2090 2095
 Leu Ser Asn Ala Ile Ser Thr Ala Leu Pro Leu Thr Gln Leu Arg Trp
 2100 2105 2110

Val Lys Gln Thr Asn Thr Glu Lys Lys Ala Ser Val Val Thr Leu Pro
 2115 2120 2125
 Val Tyr Leu Asn Phe Thr Arg Ala Asp Leu Ile Phe Thr Val Asp Phe
 2130 2135 2140
 Glu Ile Ala Thr Lys Glu Asp Pro Arg Ser Phe Tyr Glu Arg Gly Val
 2145 2150 2155 2160
 Ala Val Leu Cys Thr Glu *
 21652166

<210> 1803
 <211> 774
 <212> PRT
 <213> Homo sapiens

<400> 1803
 Met Gln Val Ser Ser Ala Glu Val Arg Ile Gly Pro Met Arg Leu Thr
 1 5 10 15
 Gln Asp Pro Ile Gln Val Leu Leu Ile Phe Ala Lys Glu Asp Ser Gln
 20 25 30
 Ser Asp Gly Phe Trp Trp Ala Cys Asp Arg Ala Gly Tyr Arg Cys Asn
 35 40 45
 Ile Ala Arg Thr Pro Glu Ser Ala Leu Glu Cys Phe Leu Asp Lys His
 50 55 60
 His Glu Ile Ile Val Ile Asp His Arg Gln Thr Gln Asn Phe Asp Ala
 65 70 75 80
 Glu Ala Val Cys Arg Ser Ile Arg Ala Thr Asn Pro Ser Glu His Thr
 85 90 95
 Val Ile Leu Ala Val Val Ser Arg Val Ser Asp Asp His Glu Glu Ala
 100 105 110
 Ser Val Leu Pro Leu Leu His Ala Gly Phe Asn Arg Arg Phe Met Glu
 115 120 125
 Asn Ser Ser Ile Ile Ala Cys Tyr Asn Glu Leu Ile Gln Ile Glu His
 130 135 140
 Gly Glu Val Arg Ser Gln Phe Lys Leu Arg Ala Cys Asn Ser Val Phe
 145 150 155 160
 Thr Ala Leu Asp His Cys His Glu Ala Ile Glu Ile Thr Ser Asp Asp
 165 170 175
 His Val Ile Gln Tyr Val Asn Pro Ala Phe Glu Arg Met Met Gly Tyr
 180 185 190
 His Lys Gly Glu Leu Leu Gly Lys Glu Leu Ala Asp Leu Pro Lys Ser
 195 200 205
 Asp Lys Asn Arg Ala Asp Leu Leu Asp Thr Ile Asn Thr Cys Ile Lys
 210 215 220
 Lys Gly Lys Glu Trp Gln Gly Val Tyr Tyr Ala Arg Arg Lys Ser Gly
 225 230 235 240
 Asp Ser Ile Gln Gln His Val Lys Ile Thr Pro Val Ile Gly Gln Gly
 245 250 255
 Gly Lys Ile Arg His Phe Val Ser Leu Lys Lys Leu Cys Cys Thr Thr
 260 265 270
 Asp Asn Asn Lys Gln Ile His Lys Ile His Arg Asp Ser Gly Asp Asn
 275 280 285
 Ser Gln Thr Glu Pro His Ser Phe Arg Tyr Lys Asn Arg Arg Lys Glu
 290 295 300
 Ser Ile Asp Val Lys Ser Ile Ser Ser Arg Gly Ser Asp Ala Pro Ser
 305 310 315 320
 Leu Gln Asn Arg Arg Tyr Pro Ser Met Ala Arg Ile His Ser Met Thr
 325 330 335
 Ile Glu Ala Pro Ile Thr Lys Val Ile Asn Ile Ile Asn Ala Ala Gln
 340 345 350
 Glu Asn Ser Pro Val Thr Val Ala Glu Ala Leu Asp Arg Val Leu Glu
 355 360 365

```

Ile Leu Arg Thr Thr Glu Leu Tyr Ser Pro Gln Leu Gly Thr Lys Asp
  370                      375                      380
Glu Asp Pro His Thr Ser Asp Leu Val Gly Gly Leu Met Thr Asp Gly
 385                      390                      395                      400
Leu Arg Arg Leu Ser Gly Asn Glu Tyr Val Phe Thr Lys Asn Val His
                      405                      410                      415
Gln Ser His Ser His Leu Ala Met Pro Ile Thr Ile Asn Asp Val Pro
                      420                      425                      430
Pro Cys Ile Ser Gln Leu Leu Asp Asn Glu Glu Ser Trp Asp Phe Asn
                      435                      440                      445
Ile Phe Glu Leu Glu Ala Ile Thr His Lys Arg Pro Leu Val Tyr Leu
 450                      455                      460
Gly Leu Lys Val Phe Ser Arg Phe Gly Val Cys Glu Phe Leu Asn Cys
 465                      470                      475                      480
Ser Glu Thr Thr Leu Arg Ala Trp Phe Gln Val Ile Glu Ala Asn Tyr
                      485                      490                      495
His Ser Ser Asn Ala Tyr His Asn Ser Thr His Ala Ala Asp Val Leu
                      500                      505                      510
His Ala Thr Ala Phe Phe Leu Gly Lys Glu Arg Val Lys Gly Ser Leu
                      515                      520                      525
Asp Gln Leu Asp Glu Val Ala Ala Leu Ile Ala Ala Thr Val His Asp
 530                      535                      540
Val Asp His Pro Gly Arg Thr Asn Ser Phe Leu Cys Asn Ala Gly Ser
 545                      550                      555                      560
Glu Leu Ala Val Leu Tyr Asn Asp Thr Ala Val Leu Glu Ser His His
                      565                      570                      575
Thr Ala Leu Ala Phe Gln Leu Thr Val Lys Asp Thr Lys Cys Asn Ile
                      580                      585                      590
Phe Lys Asn Ile Asp Arg Asn His Tyr Arg Thr Leu Arg Gln Ala Ile
                      595                      600                      605
Ile Asp Met Val Leu Ala Thr Glu Met Thr Lys His Phe Glu His Val
 610                      615                      620
Asn Lys Phe Val Asn Ser Ile Asn Lys Pro Met Ala Ala Glu Ile Glu
 625                      630                      635                      640
Gly Ser Asp Cys Glu Cys Asn Pro Ala Gly Lys Asn Phe Pro Glu Asn
                      645                      650                      655
Gln Ile Leu Ile Lys Arg Met Met Ile Lys Cys Ala Asp Val Ala Asn
                      660                      665                      670
Pro Cys Arg Pro Leu Asp Leu Cys Ile Glu Trp Ala Gly Arg Ile Ser
                      675                      680                      685
Glu Glu Tyr Phe Ala Gln Thr Asp Glu Glu Lys Arg Gln Gly Leu Pro
 690                      695                      700
Val Val Met Pro Val Phe Asp Arg Asn Thr Cys Ser Ile Pro Lys Ser
 705                      710                      715                      720
Gln Ile Ser Phe Ile Asp Tyr Phe Ile Thr Asp Met Phe Asp Ala Trp
                      725                      730                      735
Asp Ala Phe Ala His Leu Pro Ala Leu Met Gln His Leu Ala Asp Asn
                      740                      745                      750
Tyr Lys His Trp Lys Thr Leu Asp Asp Leu Lys Cys Lys Ser Leu Arg
                      755                      760                      765
Leu Pro Ser Asp Ser *
 770                      773

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<210> 1804
 <211> 273
 <212> PRT
 <213> Homo sapiens

<400> 1804
 Met Ala Leu Leu Thr Arg Thr Leu Glu Glu Ala Ser Glu Gln Ile Arg
 1 5 10 15

```

Met Asn Arg Ser Ala Lys Tyr Asn Leu Glu Lys Asp Leu Lys Asp Lys
      20      25      30
Phe Val Ala Leu Thr Ile Asp Asp Ile Cys Phe Ser Leu Asn Asn Asn
      35      40      45
Ser Pro Asn Ile Arg Tyr Ser Glu Asn Ala Val Arg Ile Glu Pro Asn
      50      55      60
Ser Val Ser Leu Glu Asp Trp Leu Asp Phe Ser Ser Thr Asn Val Glu
      65      70      75      80
Lys Ala Asp Lys Gln Arg Asn Asn Ser Leu Met Leu Lys Ala Leu Val
      85      90      95
Asp Arg Ile Leu Ser Met Thr Ala Asn Asp Leu Arg Lys Gln Cys Asp
      100      105      110
Val Val His Thr Ala Phe Lys Asn Gly Leu Lys Asp Thr Lys Asp Ala
      115      120      125
Arg Asp Lys Leu Ala Asp His Leu Ala Lys Val Met Glu Glu Ile Ala
      130      135      140
Ser Gln Glu Lys Asn Ile Thr Ala Leu Glu Lys Ala Ile Leu Asp Gln
      145      150      155      160
Glu Gly Pro Ala Lys Val Ala His Thr Arg Leu Glu Thr Arg Thr His
      165      170      175
Arg Pro Asn Val Glu Leu Cys Arg Asp Val Ala Gln Tyr Arg Leu Met
      180      185      190
Lys Glu Val Gln Glu Ile Thr His Asn Val Ala Arg Leu Lys Glu Thr
      195      200      205
Leu Ala Gln Ala Gln Ala Glu Leu Lys Gly Leu His Arg Arg Gln Leu
      210      215      220
Ala Leu Gln Glu Glu Ile Gln Val Lys Glu Asn Thr Ile Tyr Ile Asp
      225      230      235      240
Glu Val Leu Cys Met Gln Met Arg Lys Ser Ile Pro Leu Arg Asp Gly
      245      250      255
Glu Asp His Gly Val Trp Ala Gly Gly Leu Arg Pro Asp Ala Val Cys
      260      265      270      272

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<210> 1805
<211> 179
<212> PRT
<213> Homo sapiens

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```

<400> 1805
Met Leu Leu Gly Gly Arg Lys Thr Thr Asp Ile Pro Leu Glu Gly Tyr
  1      5      10      15
Leu Leu Ser Pro Ile Gln Arg Ile Cys Lys Tyr Pro Leu Leu Leu Lys
      20      25      30
Glu Leu Ala Lys Arg Thr Pro Gly Lys His Pro Asp His Pro Ala Val
      35      40      45
Gln Ser Ala Leu Gln Ala Met Lys Thr Val Cys Ser Asn Ile Asn Glu
      50      55      60
Thr Lys Arg Gln Met Glu Lys Leu Glu Ala Leu Glu Gln Leu Gln Ser
      65      70      75      80
His Ile Glu Gly Trp Glu Gly Ser Asn Leu Thr Asp Ile Cys Thr Gln
      85      90      95
Leu Leu Leu Gln Gly Thr Leu Leu Lys Ile Ser Ala Gly Asn Ile Gln
      100      105      110
Glu Arg Ala Phe Phe Leu Phe Asp Asn Leu Leu Val Tyr Cys Lys Arg
      115      120      125
Lys Ser Arg Val Thr Gly Ser Lys Lys Ser Thr Lys Arg Thr Lys Ser
      130      135      140
Ile Asn Gly Ser Leu Tyr Ile Phe Arg Gly Arg Ile Asn Thr Glu Val
      145      150      155      160

```


Met Glu Val Glu Asn Val Glu Asp Gly Thr Gly Ser Pro Ser Pro Ser
 165 170 175
 Leu Ala *
 178

<210> 1806
 <211> 876
 <212> PRT
 <213> Homo sapiens

<400> 1806
 Met His Asp Ala Phe Glu Pro Val Pro Ile Leu Glu Lys Leu Pro Leu
 1 5 10 15
 Gln Ile Asp Cys Leu Ala Ala Trp Glu Glu Trp Leu Leu Val Gly Thr
 20 25 30
 Lys Gln Gly His Leu Leu Leu Tyr Arg Ile Arg Lys Asp Val Gly Cys
 35 40 45
 Asn Arg Phe Glu Val Thr Leu Glu Lys Ser Asn Lys Asn Phe Ser Lys
 50 55 60
 Lys Ile Gln Gln Ile His Val Val Ser Gln Phe Lys Ile Leu Val Ser
 65 70 75 80
 Leu Leu Glu Asn Asn Ile Tyr Val His Asp Leu Leu Thr Phe Gln Gln
 85 90 95
 Ile Thr Thr Val Ser Lys Ala Lys Gly Ala Ser Leu Phe Thr Cys Asp
 100 105 110
 Leu Gln His Thr Glu Thr Gly Glu Glu Val Leu Arg Met Cys Val Ala
 115 120 125
 Val Lys Lys Arg Leu Gln Leu Tyr Phe Trp Lys Asp Arg Glu Phe His
 130 135 140
 Glu Leu Gln Gly Asp Phe Ser Val Pro Asp Val Pro Lys Ser Met Ala
 145 150 155 160
 Trp Cys Glu Asn Ser Ile Cys Val Gly Phe Lys Arg Asp Tyr Tyr Leu
 165 170 175
 Ile Arg Val Asp Gly Lys Gly Ser Ile Lys Glu Leu Phe Pro Thr Gly
 180 185 190
 Lys Gln Leu Glu Pro Leu Val Ala Pro Leu Ala Asp Gly Lys Val Ala
 195 200 205
 Val Gly Gln Asp Asp Leu Thr Val Val Leu Asn Glu Glu Gly Ile Cys
 210 215 220
 Thr Gln Lys Cys Ala Leu Asn Trp Thr Asp Ile Pro Val Ala Met Glu
 225 230 235 240
 His Gln Pro Pro Tyr Ile Ile Ala Val Leu Pro Arg Tyr Val Glu Ile
 245 250 255
 Arg Thr Phe Glu Pro Arg Leu Leu Val Gln Ser Ile Glu Leu Gln Arg
 260 265 270
 Pro Arg Phe Ile Thr Ser Gly Gly Ser Asn Ile Ile Tyr Val Ala Ser
 275 280 285
 Asn His Phe Val Trp Arg Leu Ile Pro Val Pro Met Ala Thr Gln Ile
 290 295 300
 Gln Gln Leu Leu Gln Asp Lys Gln Phe Glu Leu Ala Leu Gln Leu Ala
 305 310 315 320
 Glu Met Lys Asp Asp Ser Asp Ser Glu Lys Gln Gln Gln Ile His His
 325 330 335
 Ile Lys Asn Leu Tyr Ala Phe Asn Leu Phe Cys Gln Lys Arg Phe Asp
 340 345 350
 Glu Ser Met Gln Val Phe Ala Lys Leu Gly Thr Asp Pro Thr His Val
 355 360 365
 Met Gly Leu Tyr Pro Asp Leu Leu Pro Thr Asp Tyr Arg Lys Gln Leu
 370 375 380
 Gln Tyr Pro Asn Pro Leu Pro Val Leu Ser Gly Ala Glu Leu Glu Lys
 385 390 395 400

Ala His Leu Ala Leu Ile Asp Tyr Leu Thr Gln Lys Arg Ser Gln Leu
 405 410 415
 Val Lys Lys Leu Asn Asp Ser Asp His Gln Ser Ser Thr Ser Pro Leu
 420 425 430
 Met Glu Gly Thr Pro Thr Ile Lys Ser Lys Lys Lys Leu Leu Gln Ile
 435 440 445
 Ile Asp Thr Thr Leu Leu Lys Cys Tyr Leu His Thr Asn Val Ala Leu
 450 455 460
 Val Ala Pro Leu Leu Arg Leu Glu Asn Asn His Cys His Ile Glu Glu
 465 470 475 480
 Ser Glu His Val Leu Lys Lys Ala His Lys Tyr Ser Glu Leu Ile Ile
 485 490 495
 Leu Tyr Glu Lys Lys Gly Leu His Glu Lys Ala Leu Gln Val Leu Val
 500 505 510
 Asp Gln Ser Lys Lys Ala Asn Ser Pro Leu Lys Gly His Glu Arg Thr
 515 520 525
 Val Gln Tyr Leu Gln His Leu Gly Thr Glu Asn Leu His Leu Ile Phe
 530 535 540
 Ser Tyr Ser Val Trp Val Leu Arg Asp Phe Pro Glu Asp Gly Leu Lys
 545 550 555 560
 Ile Phe Thr Glu Asp Leu Pro Glu Val Glu Ser Leu Pro Arg Asp Arg
 565 570 575
 Val Leu Gly Phe Leu Ile Glu Asn Phe Lys Gly Leu Ala Ile Pro Tyr
 580 585 590
 Leu Glu His Ile Ile His Val Trp Glu Glu Thr Gly Ser Arg Phe His
 595 600 605
 Asn Cys Leu Ile Gln Leu Tyr Cys Glu Lys Val Gln Gly Leu Met Lys
 610 615 620
 Glu Tyr Leu Leu Ser Phe Pro Ala Gly Lys Thr Pro Val Pro Ala Gly
 625 630 635 640
 Glu Glu Glu Gly Glu Leu Gly Glu Tyr Arg Gln Lys Leu Leu Met Phe
 645 650 655
 Leu Glu Ile Ser Ser Tyr Tyr Asp Pro Gly Arg Leu Ile Cys Asp Phe
 660 665 670
 Pro Phe Asp Gly Leu Leu Glu Glu Arg Ala Leu Leu Leu Gly Arg Met
 675 680 685
 Gly Lys His Glu Gln Ala Leu Phe Ile Tyr Val His Ile Leu Lys Asp
 690 695 700
 Thr Arg Met Ala Glu Glu Tyr Cys His Lys His Tyr Asp Arg Asn Lys
 705 710 715 720
 Asp Gly Asn Lys Asp Val Tyr Leu Ser Leu Leu Arg Met Tyr Leu Ser
 725 730 735
 Pro Pro Ser Ile His Cys Leu Gly Pro Ile Lys Leu Glu Leu Leu Glu
 740 745 750
 Pro Lys Ala Asn Leu Gln Ala Ala Leu Gln Val Leu Glu Leu His His
 755 760 765
 Ser Lys Leu Asp Thr Thr Lys Ala Leu Asn Leu Leu Pro Ala Asn Thr
 770 775 780
 Gln Ile Asn Asp Ile Arg Ile Phe Leu Glu Lys Val Leu Glu Glu Asn
 785 790 795 800
 Ala Gln Lys Lys Arg Phe Asn Gln Val Leu Lys Asn Leu Leu His Ala
 805 810 815
 Glu Phe Leu Arg Val Gln Glu Glu Arg Ile Leu His Gln Gln Val Lys
 820 825 830
 Cys Ile Ile Thr Glu Glu Lys Val Cys Met Val Cys Lys Lys Lys Ile
 835 840 845
 Gly Asn Ser Ala Phe Ala Arg Tyr Pro Asn Gly Val Val Val His Tyr
 850 855 860
 Phe Cys Ser Lys Glu Val Asn Pro Ala Asp Thr *
 865 870 875

<211> 332
 <212> PRT
 <213> Homo sapiens

<400> 1807

```

Met Ser Arg Ala Arg Gly Ala Leu Cys Arg Ala Cys Leu Ala Leu Ala
 1           5           10           15
Ala Ala Leu Ala Ala Leu Leu Leu Leu Pro Leu Pro Leu Pro Arg Ala
           20           25           30
Pro Ala Pro Ala Arg Thr Pro Ala Pro Ala Pro Arg Ala Pro Pro Ser
           35           40           45
Arg Pro Ala Ala Pro Ser Leu Arg Pro Asp Asp Val Phe Ile Ala Val
           50           55           60
Lys Thr Thr Arg Lys Asn His Gly Pro Arg Leu Arg Leu Leu Leu Arg
           65           70           75           80
Thr Trp Ile Ser Arg Ala Arg Gln Gln Thr Phe Ile Phe Thr Asp Gly
           85           90           95
Asp Asp Pro Glu Leu Glu Leu Gln Gly Gly Asp Arg Val Ile Asn Thr
           100          105          110
Asn Cys Ser Ala Val Arg Thr Arg Gln Ala Leu Cys Cys Lys Met Ser
           115          120          125
Val Glu Tyr Asp Lys Phe Ile Glu Ser Gly Arg Lys Trp Phe Cys His
           130          135          140
Val Asp Asp Asp Asn Tyr Val Asn Ala Arg Ser Leu Leu His Leu Leu
           145          150          155          160
Ser Ser Phe Ser Pro Ser Gln Asp Val Tyr Leu Gly Arg Pro Ser Leu
           165          170          175
Asp His Pro Ile Glu Ala Thr Glu Arg Val Gln Gly Gly Arg Thr Val
           180          185          190
Thr Thr Val Lys Phe Trp Phe Ala Thr Gly Gly Ala Gly Phe Cys Leu
           195          200          205
Ser Arg Gly Leu Ala Leu Lys Met Ser Pro Trp Ala Ser Leu Gly Ser
           210          215          220
Phe Met Ser Thr Ala Glu Gln Val Arg Leu Pro Asp Asp Cys Thr Val
           225          230          235          240
Gly Tyr Ile Val Glu Gly Leu Leu Gly Ala Arg Leu Leu His Ser Pro
           245          250          255
Leu Phe His Ser His Leu Glu Asn Leu Gln Arg Leu Pro Pro Asp Thr
           260          265          270
Leu Leu Gln Gln Val Thr Leu Ser His Gly Gly Pro Glu Asn Pro Gln
           275          280          285
Asn Val Val Asn Val Ala Gly Gly Phe Ser Leu His Gln Asp Pro Thr
           290          295          300
Arg Phe Lys Ser Ile His Cys Leu Leu Tyr Pro Asp Thr Asp Trp Cys
           305          310          315          320
Pro Arg Gln Lys Gln Gly Ala Pro Thr Ser Arg *
           325          330          331

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<210> 1808
 <211> 401
 <212> PRT
 <213> Homo sapiens

<400> 1808

```

Met Phe Leu Pro Gly Pro Gln Pro Ser Ala Val Leu Pro Gly Arg Trp
 1           5           10           15
Leu Trp Ala Phe Arg Thr His Ser Gln Val Ser Ser Arg Arg Leu Pro
           20           25           30
His Thr Arg Val His Lys Thr Lys Leu Glu Phe His Glu Ala Ile Leu
           35           40           45

```

```

Arg Leu Ser Val Gln Glu Arg Cys Arg Arg Ser Ile Leu Phe Tyr Pro
 50          55          60
Tyr Ser Thr Arg Phe Asp Ser Val Pro Lys Lys Met Pro Ile Ser Thr
 65          70          75          80
His Leu Tyr Phe His Glu Arg Ser Cys Ser Gln Gln Leu Cys Arg Thr
          85          90          95
Pro His Cys Pro Pro Pro Ser Pro Leu Ala Val Pro Ser Ser Ser Arg
          100          105          110
Phe Pro Gln Leu Leu His Ser Arg Lys Pro Glu Asp Arg Phe Ser Ser
          115          120          125
Leu Lys Gly Val Pro Thr Glu Val Lys Ile Gln Glu Met Thr Lys Leu
 130          135          140
Gly His Glu Leu Met Leu Cys Ala Pro Asp Asp Gln Glu Leu Leu Lys
 145          150          155          160
Gly Cys Ala Cys Ala Gln Lys Gln Leu His Phe Met Asp Gln Leu Leu
          165          170          175
Asp Thr Ile Arg Ser Leu Thr Ile Gly Cys Ser Ser Cys Ser Ser Leu
          180          185          190
Met Glu His Phe Glu Asp Thr Arg Glu Lys Asn Glu Ala Leu Leu Gly
          195          200          205
Glu Leu Phe Ser Ser Pro His Leu Gln Met Leu Leu Asn Pro Glu Cys
 210          215          220
Asp Pro Trp Pro Leu Asp Met Gln Pro Leu Leu Asn Lys Gln Ser Asp
 225          230          235          240
Asp Trp Gln Trp Ala Ser Ala Ser Ala Lys Ser Glu Glu Glu Glu Lys
          245          250          255
Leu Ala Glu Leu Ala Arg Gln Leu Gln Glu Ser Ala Ala Lys Leu His
          260          265          270
Ala Leu Arg Thr Glu Tyr Phe Ala Gln His Glu Gln Gly Ala Ala Ala
          275          280          285
Gly Ala Ala Asp Ile Ser Thr Leu Asp Gln Lys Leu Arg Leu Val Thr
 290          295          300
Ser Asp Phe His Gln Leu Ile Leu Ala Phe Leu Gln Val Tyr Asp Asp
 305          310          315          320
Glu Leu Gly Glu Cys Cys Gln Arg Pro Gly Pro Asp Leu His Pro Cys
          325          330          335
Gly Pro Ile Ile Gln Ala Thr His Gln Asn Leu Thr Ser Tyr Ser Gln
          340          345          350
Leu Leu Gln Val Val Met Ala Val Ala Asp Thr Ser Ala Lys Ala Val
          355          360          365
Glu Thr Val Lys Lys Gln Gln Gly Glu Gln Ile Cys Trp Gly Gly Ser
 370          375          380
Ser Ser Val Met Ser Leu Ala Thr Lys Met Asn Glu Leu Met Glu Lys
 385          390          395          400
*
```

```

<210> 1809
<211> 250
<212> PRT
<213> Homo sapiens
```

```

<400> 1809
Met Leu Leu Lys Val Gln Tyr Ile Ser Cys Trp Ala Val Met Ser Phe
 1          5          10          15
Ser Ser Phe Val Leu Asn Pro Leu Arg Leu Ser Tyr Asn Leu Val Cys
          20          25          30
Lys Ala Phe Ser Gly Met Val Phe Pro Pro Pro Val Phe Val Val Thr
          35          40          45
Glu Pro Ala Asp Thr Asp Gly Gln Leu Tyr Leu Cys Phe Ser Phe Asp
 50          55          60
```

```

Pro Tyr Ile Ala Val Ser Glu Leu Gln Lys Leu Ile Arg Gln Leu Leu
 65              70              75              80
Leu Leu Gln Leu Phe Pro Lys Tyr Leu Ile Tyr Ile Asp Ile Asn Lys
      85              90              95
Ala Leu Leu Ala Lys Arg Lys Arg Leu Glu Met Tyr Thr Lys Ala Ser
      100             105             110
Leu Lys Thr Ser Asn Gln Lys Ile Glu His Val Trp Lys Thr Gln Gln
      115             120             125
Asp Gln Arg Gln Lys Leu Asn Gln Glu Tyr Ser Gln Gln Phe Leu Thr
      130             135             140
Leu Phe Gln Gln Trp Asp Leu Asp Met Gln Lys Ala Glu Glu Gln Glu
      145             150             155             160
Glu Lys Ile Leu Asn Met Phe Arg Gln Gln Gln Lys Ile Leu Gln Gln
      165             170             175
Ser Arg Ile Val Gln Ser Gln Arg Leu Lys Thr Ile Lys Gln Leu Tyr
      180             185             190
Glu Gln Phe Ile Lys Ser Met Glu Leu Glu Lys Asn His Asp Asn
      195             200             205
Leu Leu Thr Gly Ala Gln Asn Glu Phe Lys Lys Glu Met Ala Met Leu
      210             215             220
Gln Lys Lys Ile Met Met Glu Thr Gln Gln Gln Glu Ile Ala Ser Val
      225             230             235             240
Arg Lys Ser Leu Gln Ser Met Leu Phe *
      245             249

```

```

<210> 1810
<211> 116
<212> PRT
<213> Homo sapiens

```

```

<400> 1810
Met Trp Val Asn Pro Glu Glu Val Leu Leu Ala Asn Ala Leu Trp Ile
 1              5              10              15
Thr Glu Arg Ala Asn Pro Tyr Phe Ile Leu Gln Arg Arg Lys Gly His
      20              25              30
Ala Gly Asp Gly Gly Gly Gly Gly Gly Leu Ala Gly Leu Leu Val Gly
      35              40              45
Thr Leu Asp Val Val Leu Asp Ser Ser Ala Arg Val Ala Pro Tyr Arg
      50              55              60
Ile Leu Tyr Gln Thr Pro Asp Ser Leu Gly Leu Leu Asp His Arg Leu
      65              70              75              80
Trp Val Val Pro Gly Lys Lys Ser Leu Asn Thr Gly Asn Gly Leu Ser
      85              90              95
Lys Ile Ser Cys Arg His Phe Pro Ser Leu Lys Met Arg Met Ile Ser
      100             105             110
Pro His Leu *
      115

```

```

<210> 1811
<211> 644
<212> PRT
<213> Homo sapiens

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```

<400> 1811
Met Val Asp Ala Gly Gly Val Glu Asn Ile Thr Gln Leu Pro Gln Glu
 1              5              10              15
Leu Pro Gln Met Met Ala Ala Ala Ala Asp Gly Leu Gly Ser Ile Ala
      20              25              30

```

```

Ile Asp Thr Thr Gln Leu Asn Met Ser Val Thr Asp Pro Thr Ala Trp
      35      40      45
Ala Thr Ala Met Asn Asn Leu Gly Met Val Pro Val Gly Leu Pro Gly
      50      55      60
Gln Gln Leu Val Ser Asp Ser Ile Cys Val Pro Gly Phe Asp Pro Ser
      65      70      75      80
Leu Asn Met Met Thr Gly Ile Thr Pro Ile Asn Pro Met Ile Pro Gly
      85      90      95
Leu Gly Leu Val Pro Pro Pro Pro Thr Glu Val Ala Val Val Lys
      100      105      110
Glu Ile Ile His Cys Lys Ser Cys Thr Leu Phe Pro Gln Asn Pro Asn
      115      120      125
Leu Pro Pro Pro Ser Thr Arg Glu Arg Pro Pro Gly Cys Lys Thr Val
      130      135      140
Phe Val Gly Gly Leu Pro Glu Asn Ala Thr Glu Glu Ile Ile Gln Glu
      145      150      155      160
Val Phe Glu Gln Cys Gly Asp Ile Thr Ala Ile Arg Lys Ser Lys Lys
      165      170      175
Asn Phe Cys His Ile Arg Phe Ala Glu Glu Phe Met Val Asp Lys Ala
      180      185      190
Ile Tyr Leu Ser Gly Tyr Arg Met Arg Leu Gly Ser Ser Thr Asp Lys
      195      200      205
Lys Asp Ser Gly Arg Leu His Val Asp Phe Ala Gln Ala Arg Asp Asp
      210      215      220
Phe Tyr Glu Trp Glu Cys Lys Gln Arg Met Arg Ala Arg Glu Glu Arg
      225      230      235      240
His Arg Arg Lys Leu Glu Glu Asp Arg Leu Arg Pro Pro Ser Pro Pro
      245      250      255
Ala Ile Met His Tyr Ser Glu His Glu Ala Ala Leu Leu Ala Glu Lys
      260      265      270
Leu Lys Asp Asp Ser Lys Phe Ser Glu Ala Ile Thr Val Leu Leu Ser
      275      280      285
Trp Ile Glu Arg Gly Glu Val Asn Arg Arg Ser Ala Asn Gln Phe Tyr
      290      295      300
Ser Met Val Gln Ser Ala Asn Ser His Val Arg Arg Leu Met Asn Glu
      305      310      315      320
Lys Ala Thr His Glu Gln Glu Met Glu Glu Ala Lys Glu Asn Phe Lys
      325      330      335
Asn Ala Leu Thr Gly Ile Leu Thr Gln Phe Glu Gln Ile Val Ala Val
      340      345      350
Phe Asn Ala Ser Thr Arg Gln Lys Ala Trp Asp His Phe Ser Lys Ala
      355      360      365
Gln Arg Lys Asn Ile Asp Ile Trp Arg Lys His Ser Glu Glu Leu Arg
      370      375      380
Asn Ala Gln Ser Glu Gln Leu Met Gly Ile Arg Arg Glu Glu Glu Met
      385      390      395      400
Glu Met Ser Asp Asp Glu Asn Cys Asp Ser Pro Thr Lys Lys Met Arg
      405      410      415
Val Asp Glu Ser Ala Leu Ala Ala Gln Ala Tyr Ala Leu Lys Glu Glu
      420      425      430
Asn Asp Ser Leu Arg Trp Gln Leu Asp Ala Tyr Arg Asn Glu Val Glu
      435      440      445
Leu Leu Lys Gln Glu Lys Glu Gln Leu Phe Arg Thr Glu Glu Asn Leu
      450      455      460
Thr Lys Asp Gln Gln Leu Gln Phe Leu Gln Gln Thr Met Gln Gly Met
      465      470      475      480
Gln Gln Gln Leu Leu Thr Ile Gln Glu Glu Leu Asn Asn Lys Lys Ser
      485      490      495
Glu Leu Glu Gln Ala Lys Glu Glu Gln Ser His Thr Gln Ala Leu Leu
      500      505      510
Lys Val Leu Gln Glu Gln Leu Lys Gly Thr Lys Glu Leu Val Glu Thr
      515      520      525
Asn Gly His Ser His Glu Asp Ser Asn Glu Ile Asn Val Leu Thr Val
      530      535      540

```

Ala Leu Val Asn Gln Asp Arg Glu Asn Asn Ile Glu Lys Arg Ser Gln
 545 550 555 560
 Gly Leu Lys Ser Glu Lys Glu Ala Leu Leu Ile Gly Ile Ile Ser Thr
 565 570 575
 Phe Leu His Val His Pro Phe Gly Ala Asn Ile Glu Tyr Leu Trp Ser
 580 585 590
 Tyr Met Gln Gln Leu Asp Ser Lys Ile Ser Ala Asn Glu Ile Glu Met
 595 600 605
 Leu Leu Met Arg Leu Pro Arg Met Phe Lys Gln Glu Phe Thr Gly Val
 610 615 620
 Gly Ala Thr Leu Glu Lys Arg Trp Lys Leu Cys Ala Phe Glu Gly Ile
 625 630 635 640
 Lys Thr Thr *
 643

<210> 1812
 <211> 855
 <212> PRT
 <213> Homo sapiens

<400> 1812
 Met Pro Gly Gly Gly Pro Gln Gly Ala Pro Ala Ala Ala Gly Gly Gly
 1 5 10 15
 Gly Val Ser His Arg Ala Gly Ser Arg Asp Cys Leu Pro Pro Ala Ala
 20 25 30
 Cys Phe Arg Arg Arg Arg Leu Ala Arg Arg Pro Gly Tyr Met Arg Ser
 35 40 45
 Ser Thr Gly Pro Gly Ile Gly Phe Leu Ser Pro Ala Val Gly Thr Leu
 50 55 60
 Phe Arg Phe Pro Gly Gly Val Ser Gly Glu Glu Ser His His Ser Glu
 65 70 75 80
 Ser Arg Ala Arg Gln Cys Gly Leu Asp Ser Arg Gly Leu Leu Val Arg
 85 90 95
 Ser Pro Val Ser Lys Ser Ala Ala Ala Pro Thr Val Thr Ser Val Arg
 100 105 110
 Gly Thr Ser Ala His Phe Gly Ile Gln Leu Arg Gly Gly Thr Arg Leu
 115 120 125
 Pro Asp Arg Leu Ser Trp Pro Cys Gly Pro Gly Ser Ala Gly Trp Gln
 130 135 140
 Gln Glu Phe Ala Ala Met Asp Ser Ser Glu Thr Leu Asp Ala Ser Trp
 145 150 155 160
 Glu Ala Ala Cys Ser Asp Gly Ala Arg Arg Val Arg Ala Ala Gly Ser
 165 170 175
 Leu Pro Ser Ala Glu Leu Ser Ser Asn Ser Cys Ser Pro Gly Cys Gly
 180 185 190
 Pro Glu Val Pro Pro Thr Pro Pro Gly Ser His Ser Ala Phe Thr Ser
 195 200 205
 Ser Phe Ser Phe Ile Arg Leu Ser Leu Gly Ser Ala Gly Glu Arg Gly
 210 215 220
 Glu Ala Glu Gly Cys Pro Pro Ser Arg Glu Ala Glu Ser His Cys Gln
 225 230 235 240
 Ser Pro Gln Glu Met Gly Ala Lys Ala Ala Ser Leu Asp Gly Pro His
 245 250 255
 Glu Asp Pro Arg Cys Leu Ser Gln Pro Phe Ser Leu Leu Ala Thr Arg
 260 265 270
 Val Ser Ala Asp Leu Ala Gln Ala Ala Arg Asn Ser Ser Arg Pro Glu
 275 280 285
 Arg Asp Met His Ser Leu Pro Asp Met Asp Pro Gly Ser Ser Ser Ser
 290 295 300
 Leu Asp Pro Ser Leu Ala Gly Cys Gly Gly Asp Gly Ser Ser Gly Ser
 305 310 315 320

Gly	Asp	Ala	His	Ser	Trp	Asp	Thr	Leu	Leu	Arg	Lys	Trp	Glu	Pro	Val
				325					330					335	
Leu	Arg	Asp	Cys	Leu	Leu	Arg	Asn	Arg	Arg	Gln	Met	Glu	Val	Ile	Ser
			340					345					350		
Leu	Arg	Leu	Lys	Leu	Gln	Lys	Leu	Gln	Glu	Asp	Ala	Val	Glu	Asn	Asp
			355					360					365		
Asp	Tyr	Asp	Lys	Ala	Glu	Thr	Leu	Gln	Gln	Arg	Leu	Glu	Asp	Leu	Glu
	370					375					380				
Gln	Glu	Lys	Ile	Ser	Leu	His	Phe	Gln	Leu	Pro	Ser	Arg	Gln	Pro	Ala
	385				390					395					400
Leu	Ser	Ser	Phe	Leu	Gly	His	Leu	Ala	Ala	Gln	Val	Gln	Ala	Ala	Leu
			405						410					415	
Arg	Arg	Gly	Ala	Thr	Gln	Gln	Ala	Ser	Gly	Asp	Asp	Thr	His	Thr	Pro
			420					425					430		
Leu	Arg	Met	Glu	Pro	Arg	Leu	Leu	Glu	Pro	Thr	Ala	Gln	Asp	Ser	Leu
		435					440						445		
His	Val	Ser	Ile	Thr	Arg	Arg	Asp	Trp	Leu	Leu	Gln	Glu	Lys	Gln	Gln
	450					455					460				
Leu	Gln	Lys	Glu	Ile	Glu	Ala	Leu	Gln	Ala	Arg	Met	Phe	Val	Leu	Glu
	465				470					475					480
Ala	Lys	Asp	Gln	Gln	Leu	Arg	Arg	Glu	Ile	Glu	Glu	Gln	Glu	Gln	Gln
				485					490					495	
Leu	Gln	Trp	Gln	Gly	Cys	Asp	Leu	Thr	Pro	Leu	Val	Gly	Gln	Leu	Ser
		500						505					510		
Leu	Gly	Gln	Leu	Gln	Glu	Val	Ser	Lys	Ala	Leu	Gln	Asp	Thr	Leu	Ala
	515						520					525			
Ser	Ala	Gly	Gln	Ile	Pro	Phe	His	Ala	Glu	Pro	Pro	Glu	Thr	Ile	Arg
	530					535					540				
Ser	Leu	Gln	Glu	Arg	Ile	Lys	Ser	Leu	Asn	Leu	Ser	Leu	Lys	Glu	Ile
	545				550					555					560
Thr	Thr	Lys	Val	Cys	Met	Ser	Glu	Lys	Phe	Cys	Ser	Thr	Leu	Arg	Lys
				565					570					575	
Lys	Val	Asn	Asp	Ile	Glu	Thr	Gln	Leu	Pro	Ala	Leu	Leu	Glu	Ala	Lys
			580					585					590		
Met	His	Ala	Ile	Ser	Gly	Asn	His	Phe	Trp	Thr	Ala	Lys	Asp	Leu	Thr
	595					600						605			
Glu	Glu	Ile	Arg	Ser	Leu	Thr	Ser	Glu	Arg	Glu	Gly	Leu	Glu	Gly	Leu
	610					615					620				
Leu	Ser	Lys	Leu	Leu	Val	Leu	Ser	Ser	Arg	Asn	Val	Lys	Lys	Leu	Gly
	625				630					635					640
Ser	Val	Lys	Glu	Asp	Tyr	Asn	Arg	Leu	Arg	Arg	Glu	Val	Glu	His	Gln
				645					650					655	
Glu	Thr	Ala	Tyr	Glu	Thr	Ser	Val	Lys	Glu	Asn	Thr	Met	Lys	Tyr	Met
		660						665					670		
Glu	Thr	Leu	Lys	Asn	Lys	Leu	Cys	Ser	Cys	Lys	Cys	Pro	Leu	Leu	Gly
	675						680					685			
Lys	Val	Trp	Glu	Ala	Asp	Leu	Glu	Ala	Cys	Arg	Leu	Leu	Ile	Gln	Cys
	690					695					700				
Leu	Gln	Leu	Gln	Glu	Ala	Arg	Gly	Ser	Leu	Ser	Val	Glu	Asp	Glu	Arg
	705				710					715					720
Gln	Met	Asp	Asp	Leu	Glu	Gly	Ala	Ala	Pro	Pro	Ile	Pro	Pro	Arg	Leu
				725					730					735	
His	Ser	Glu	Asp	Lys	Arg	Lys	Thr	Pro	Leu	Lys	Val	Leu	Glu	Glu	Trp
		740						745					750		
Lys	Thr	His	Leu	Ile	Pro	Ser	Leu	His	Cys	Ala	Gly	Gly	Glu	Gln	Lys
	755						760					765			
Glu	Glu	Ser	Tyr	Ile	Leu	Ser	Ala	Glu	Leu	Gly	Glu	Lys	Cys	Glu	Asp
	770					775					780				
Ile	Gly	Lys	Lys	Leu	Leu	Tyr	Leu	Glu	Asp	Gln	Leu	His	Thr	Ala	Ile
	785				790					795					800
His	Ser	His	Asp	Glu	Asp	Leu	Ile	Gln	Ser	Leu	Arg	Arg	Glu	Leu	Gln
				805					810					815	
Met	Val	Lys	Glu	Thr	Leu	Gln	Ala	Met	Ile	Leu	Gln	Leu	Gln	Pro	Ala
			820					825					830		

Lys Glu Ala Gly Glu Arg Glu Ala Ala Ala Ser Cys Met Thr Ala Gly
 835 840 845
 Val His Glu Ala Gln Ala *
 850 854

<210> 1813
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 1813
 Met Tyr Asn Met Met Glu Thr Glu Leu Lys Pro Pro Gly Pro Gln Gln
 1 5 10 15
 Thr Ser Gly Gly Gly Gly Asn Ser Thr Ala Ala Ala Gly Gly
 20 25 30
 Asn Gln Lys Asn Ser Pro Asp Arg Val Lys Arg Pro Met Asn Ala Phe
 35 40 45
 Met Val Trp Ser Arg Gly Gln Arg Arg Lys Met Ala Gln Glu Asn Pro
 50 55 60
 Lys Met His Asn Ser Glu Ile Ser Lys Arg Leu Gly Ala Glu Trp Lys
 65 70 75 80
 Leu Leu Ser Glu Thr Glu Lys Arg Pro Phe Ile Asp Glu Ala Lys Arg
 85 90 95
 Leu Arg Ala Leu His Met Lys Glu His Pro Asp Tyr Lys Tyr Arg Pro
 100 105 110
 Arg Arg Lys Thr Lys Thr Leu Met Lys Lys Asp Lys Tyr Thr Leu Pro
 115 120 125
 Gly Gly Leu Leu Ala Pro Gly Gly Asn Ser Met Ala Ser Gly Val Gly
 130 135 140
 Val Gly Ala Gly Leu Gly Ala Gly Val Asn Gln Arg Met Asp Ser Tyr
 145 150 155 160
 Ala His Met Asn Gly Trp Ser Asn Gly Ser Tyr Ser Met Met Gln Asp
 165 170 175
 Gln Leu Gly Tyr Pro Gln His Pro Gly Leu Asn Ala His Gly Ala Ala
 180 185 190
 Gln Met Gln Pro Met His Arg Tyr Asp Val Ser Ala Leu Gln Tyr Asn
 195 200 205
 Ser Met Thr Ser Ser Gln Thr Tyr Met Asn Gly Ser Pro Thr Tyr Ser
 210 215 220
 Met Ser Tyr Ser Gln Gln Gly Thr Pro Gly Met Ala Leu Gly Ser Met
 225 230 235 240
 Gly Ser Val Val Lys Ser Glu Ala Ser Ser Ser Pro Pro Val Val Thr
 245 250 255
 Ser Ser Ser His Ser Arg Ala Pro Cys Gln Ala Gly Asp Leu Arg Asp
 260 265 270
 Met Ile Ser Met Tyr Leu Pro Gly Ala Glu Val Pro Glu Pro Ala Ala
 275 280 285
 Pro Ser Arg Leu His Met Ser Gln His Tyr Gln Ser Gly Pro Val Pro
 290 295 300
 Gly Thr Ala Ile Asn Gly Thr Leu Pro Leu Ser His Met *
 305 310 315 317

<210> 1814
 <211> 920
 <212> PRT
 <213> Homo sapiens

<400> 1814

Met	Val	Gln	Arg	Met	Trp	Ala	Glu	Ala	Ala	Gly	Pro	Ala	Gly	Gly	Ala	1	5	10	15
Glu	Pro	Leu	Phe	Pro	Gly	Ser	Arg	Arg	Ser	Arg	Ser	Val	Trp	Asp	Ala	20	25	30	
Val	Arg	Leu	Glu	Val	Gly	Val	Pro	Asp	Ser	Cys	Pro	Val	Val	Leu	His	35	40	45	
Ser	Phe	Thr	Gln	Leu	Asp	Pro	Asp	Leu	Pro	Arg	Pro	Glu	Ser	Ser	Thr	50	55	60	
Gln	Glu	Ile	Gly	Glu	Glu	Leu	Ile	Asn	Gly	Val	Ile	Tyr	Ser	Ile	Ser	65	70	75	80
Leu	Arg	Lys	Val	Gln	Leu	His	His	Gly	Gly	Asn	Lys	Gly	Gln	Arg	Trp	85	90	95	
Leu	Gly	Tyr	Glu	Asn	Glu	Ser	Ala	Leu	Asn	Leu	Tyr	Glu	Thr	Cys	Lys	100	105	110	
Val	Arg	Thr	Val	Lys	Ala	Gly	Thr	Leu	Glu	Lys	Leu	Val	Glu	His	Leu	115	120	125	
Val	Pro	Ala	Phe	Gln	Gly	Ser	Asp	Leu	Ser	Tyr	Val	Thr	Ile	Phe	Leu	130	135	140	
Cys	Thr	Tyr	Arg	Ala	Phe	Thr	Thr	Thr	Gln	Gln	Val	Leu	Asp	Leu	Leu	145	150	155	160
Phe	Lys	Arg	Tyr	Gly	Arg	Cys	Asp	Ala	Leu	Thr	Ala	Ser	Ser	Arg	Tyr	165	170	175	
Gly	Cys	Ile	Leu	Pro	Tyr	Ser	Asp	Glu	Asp	Gly	Gly	Pro	Gln	Asp	Gln	180	185	190	
Leu	Lys	Asn	Ala	Ile	Ser	Ser	Ile	Leu	Gly	Thr	Trp	Leu	Asp	Gln	Tyr	195	200	205	
Ser	Glu	Asp	Phe	Cys	Gln	Pro	Pro	Asp	Phe	Pro	Cys	Leu	Lys	Gln	Leu	210	215	220	
Val	Ala	Tyr	Val	Gln	Leu	Asn	Met	Pro	Gly	Ser	Asp	Leu	Glu	Arg	Arg	225	230	235	240
Ala	His	Leu	Leu	Leu	Ala	Gln	Leu	Glu	His	Ser	Glu	Pro	Ile	Glu	Ala	245	250	255	
Glu	Pro	Glu	Gly	Glu	Glu	Asp	Trp	Ala	Leu	Ser	Pro	Val	Pro	Ala	Leu	260	265	270	
Lys	Pro	Thr	Pro	Glu	Leu	Glu	Leu	Ala	Leu	Thr	Pro	Ala	Arg	Ala	Pro	275	280	285	
Ser	Pro	Val	Pro	Ala	Pro	Ala	Pro	Glu	Pro	Glu	Pro	Ala	Pro	Thr	Pro	290	295	300	
Ala	Pro	Gly	Ser	Glu	Leu	Glu	Val	Ala	Pro	Ala	Pro	Ala	Pro	Glu	Leu	305	310	315	320
Gln	Gln	Ala	Pro	Glu	Pro	Ala	Val	Gly	Leu	Glu	Ser	Ala	Pro	Ala	Pro	325	330	335	
Ala	Leu	Glu	Leu	Glu	Pro	Ala	Pro	Glu	Gln	Asp	Pro	Ala	Pro	Ser	Gln	340	345	350	
Thr	Leu	Glu	Leu	Glu	Pro	Ala	Pro	Ala	Pro	Val	Pro	Ser	Leu	Gln	Pro	355	360	365	
Ser	Trp	Pro	Ser	Pro	Val	Val	Ala	Glu	Asn	Gly	Leu	Ser	Glu	Glu	Lys	370	375	380	
Pro	His	Leu	Leu	Val	Phe	Pro	Pro	Asp	Leu	Val	Ala	Glu	Gln	Phe	Thr	385	390	395	400
Leu	Met	Asp	Ala	Glu	Leu	Phe	Lys	Lys	Val	Val	Pro	Tyr	His	Cys	Leu	405	410	415	
Gly	Ser	Ile	Trp	Ser	Gln	Arg	Asp	Lys	Lys	Gly	Lys	Glu	His	Leu	Ala	420	425	430	
Pro	Thr	Ile	Arg	Ala	Thr	Val	Thr	Gln	Phe	Asn	Ser	Val	Ala	Asn	Cys	435	440	445	
Val	Ile	Thr	Thr	Cys	Leu	Gly	Asn	Arg	Ser	Thr	Lys	Ala	Pro	Asp	Arg	450	455	460	
Ala	Arg	Val	Val	Glu	His	Trp	Ile	Glu	Val	Ala	Arg	Glu	Cys	Arg	Ile	465	470	475	480
Leu	Lys	Asn	Phe	Ser	Ser	Leu	Tyr	Ala	Ile	Leu	Ser	Ala	Leu	Gln	Ser	485	490	495	
Asn	Ser	Ile	His	Arg	Leu	Lys	Lys	Thr	Trp	Glu	Asp	Val	Ser	Arg	Asp	500	505	510	

Ser Phe Arg Ile Phe Gln Lys Leu Ser Glu Ile Phe Ser Asp Glu Asn
 515 520 525
 Asn Tyr Ser Leu Ser Arg Glu Leu Leu Ile Lys Glu Gly Thr Ser Lys
 530 535 540
 Phe Ala Thr Leu Glu Met Asn Pro Lys Arg Ala Gln Lys Arg Pro Lys
 545 550 555 560
 Glu Thr Gly Ile Ile Gln Gly Thr Val Pro Tyr Leu Gly Thr Phe Leu
 565 570 575
 Thr Asp Leu Val Met Leu Asp Thr Ala Met Lys Asp Tyr Leu Tyr Gly
 580 585 590
 Arg Leu Ile Asn Phe Glu Lys Arg Arg Lys Glu Phe Glu Val Ile Ala
 595 600 605
 Gln Ile Lys Leu Leu Gln Ser Ala Cys Asn Asn Tyr Ser Ile Ala Pro
 610 615 620
 Asp Glu Gln Phe Gly Ala Trp Phe Arg Ala Val Glu Arg Leu Ser Glu
 625 630 635 640
 Thr Glu Ser Tyr Asn Leu Ser Cys Glu Leu Glu Pro Pro Ser Glu Ser
 645 650 655
 Ala Ser Asn Thr Leu Arg Thr Lys Lys Asn Thr Ala Ile Val Lys Arg
 660 665 670
 Trp Ser Asp Arg Gln Ala Pro Ser Thr Glu Leu Ser Thr Ser Gly Ser
 675 680 685
 Ser His Ser Lys Ser Cys Asp Gln Leu Arg Cys Gly Pro Tyr Leu Ser
 690 695 700
 Ser Gly Asp Ile Ala Asp Ala Leu Ser Val His Ser Ala Gly Ser Ser
 705 710 715 720
 Ser Ser Asp Val Glu Glu Ile Asn Ile Ser Phe Val Pro Glu Ser Pro
 725 730 735
 Asp Gly Gln Glu Lys Lys Phe Trp Glu Ser Ala Ser Gln Ser Ser Pro
 740 745 750
 Glu Thr Ser Gly Ile Ser Ser Ala Ser Ser Ser Thr Ser Ser Ser
 755 760 765
 Ala Ser Thr Thr Pro Val Ala Ala Thr Arg Thr His Lys Arg Ser Val
 770 775 780
 Ser Gly Leu Cys Asn Ser Ser Ser Ala Leu Pro Leu Tyr Asn Gln Gln
 785 790 795 800
 Val Gly Asp Cys Cys Ile Ile Arg Val Ser Leu Asp Val Asp Asn Gly
 805 810 815
 Asn Met Tyr Lys Ser Ile Leu Val Thr Ser Gln Asp Lys Ala Pro Ala
 820 825 830
 Val Ile Arg Lys Ala Met Asp Lys His Asn Leu Glu Glu Glu Pro
 835 840 845
 Glu Asp Tyr Glu Leu Leu Gln Ile Leu Ser Asp Asp Arg Lys Leu Lys
 850 855 860
 Ile Pro Glu Asn Ala Asn Val Phe Tyr Ala Met Asn Ser Thr Ala Asn
 865 870 875 880
 Tyr Asp Phe Val Leu Lys Lys Arg Thr Phe Thr Lys Gly Val Lys Val
 885 890 895
 Lys His Gly Ala Ser Ser Thr Leu Pro Arg Met Lys Gln Lys Gly Leu
 900 905 910
 Lys Ile Ala Lys Gly Ile Phe *
 915 919

<210> 1815
 <211> 1304
 <212> PRT
 <213> Homo sapiens

<400> 1815
 Met Gly Asp Pro Ala Pro Ala Arg Ser Leu Asp Asp Ile Asp Leu Ser
 1 5 10 15

Ala	Leu	Arg	Asp	Pro	Ala	Gly	Ile	Phe	Glu	Leu	Val	Glu	Val	Val	Gly
			20					25					30		
Asn	Gly	Thr	Tyr	Gly	Gln	Val	Tyr	Lys	Gly	Arg	His	Val	Lys	Thr	Gly
		35					40					45			
Gln	Leu	Ala	Ala	Ile	Lys	Val	Met	Asp	Val	Thr	Glu	Asp	Glu	Glu	Glu
	50					55					60				
Glu	Ile	Lys	Gln	Glu	Ile	Asn	Met	Leu	Lys	Lys	Tyr	Ser	His	His	Arg
	65				70					75					80
Asn	Ile	Ala	Thr	Tyr	Gly	Ala	Phe	Ile	Lys	Lys	Ser	Pro	Pro	Gly	
			85					90						95	
Asn	Asp	Asp	Gln	Leu	Trp	Leu	Val	Met	Glu	Phe	Cys	Gly	Ala	Gly	Ser
		100						105					110		
Val	Thr	Asp	Leu	Val	Lys	Asn	Thr	Lys	Gly	Asn	Ala	Leu	Lys	Glu	Asp
		115					120					125			
Cys	Ile	Ala	Tyr	Ile	Cys	Arg	Glu	Ile	Leu	Arg	Gly	Leu	Ala	His	Leu
	130					135					140				
His	Ala	His	Lys	Val	Ile	His	Arg	Asp	Ile	Lys	Gly	Gln	Asn	Val	Leu
	145					150				155					160
Leu	Thr	Glu	Asn	Ala	Glu	Val	Lys	Leu	Val	Asp	Phe	Gly	Val	Ser	Ala
			165					170						175	
Gln	Leu	Asp	Arg	Thr	Val	Gly	Arg	Arg	Asn	Thr	Phe	Ile	Gly	Thr	Pro
		180						185					190		
Tyr	Trp	Met	Ala	Pro	Glu	Val	Ile	Ala	Cys	Asp	Glu	Asn	Pro	Asp	Ala
		195						200					205		
Thr	Tyr	Asp	Tyr	Arg	Ser	Asp	Ile	Trp	Ser	Leu	Gly	Ile	Thr	Ala	Ile
	210					215					220				
Glu	Met	Ala	Glu	Gly	Ala	Pro	Pro	Leu	Cys	Asp	Met	His	Pro	Met	Arg
	225					230				235					240
Ala	Leu	Phe	Leu	Ile	Pro	Arg	Asn	Pro	Pro	Pro	Arg	Leu	Lys	Ser	Lys
			245					250						255	
Lys	Trp	Ser	Lys	Lys	Phe	Ile	Asp	Phe	Ile	Asp	Thr	Cys	Leu	Ile	Lys
		260						265					270		
Thr	Tyr	Leu	Ser	Arg	Pro	Pro	Thr	Glu	Gln	Leu	Leu	Lys	Phe	Pro	Phe
		275					280					285			
Ile	Arg	Asp	Gln	Pro	Thr	Glu	Arg	Gln	Val	Arg	Ile	Gln	Leu	Lys	Asp
	290					295					300				
His	Ile	Asp	Arg	Ser	Arg	Lys	Lys	Arg	Gly	Glu	Lys	Glu	Glu	Thr	Glu
	305					310				315					320
Tyr	Glu	Tyr	Ser	Gly	Ser	Glu	Glu	Glu	Asp	Asp	Ser	His	Gly	Glu	Glu
			325					330					335		
Gly	Glu	Pro	Ser	Ser	Ile	Met	Asn	Val	Pro	Gly	Glu	Ser	Thr	Leu	Arg
		340						345					350		
Arg	Glu	Phe	Leu	Arg	Leu	Gln	Gln	Glu	Asn	Lys	Ser	Asn	Ser	Glu	Ala
		355					360					365			
Leu	Lys	Gln	Gln	Gln	Gln	Leu	Gln	Gln	Gln	Gln	Gln	Arg	Asp	Pro	Glu
	370					375					380				
Ala	His	Ile	Lys	His	Leu	Leu	His	Gln	Arg	Gln	Arg	Arg	Ile	Glu	Glu
	385					390				395					400
Gln	Lys	Glu	Glu	Arg	Arg	Arg	Val	Glu	Glu	Gln	Gln	Arg	Arg	Glu	Arg
			405					410					415		
Glu	Gln	Arg	Lys	Leu	Gln	Glu	Lys	Glu	Gln	Gln	Arg	Arg	Leu	Glu	Asp
		420						425					430		
Met	Gln	Ala	Leu	Arg	Arg	Glu	Glu	Glu	Arg	Arg	Gln	Ala	Glu	Arg	Glu
		435				440						445			
Gln	Glu	Tyr	Lys	Arg	Lys	Gln	Leu	Glu	Glu	Gln	Arg	Gln	Ser	Glu	Arg
	450					455					460				
Leu	Gln	Arg	Gln	Leu	Gln	Gln	Glu	His	Ala	Tyr	Leu	Lys	Ser	Leu	Gln
	465					470				475					480
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Leu	Gln	Lys	Gln	Gln	Gln	Gln	Gln	Leu
			485					490						495	
Leu	Pro	Gly	Asp	Arg	Lys	Pro	Leu	Tyr	His	Tyr	Gly	Arg	Gly	Met	Asn
		500						505					510		
Pro	Ala	Asp	Lys	Pro	Ala	Trp	Ala	Arg	Glu	Val	Glu	Glu	Arg	Thr	Arg
		515					520						525		

Met	Asn	Lys	Gln	Gln	Asn	Ser	Pro	Leu	Ala	Lys	Ser	Lys	Pro	Gly	Ser
530						535					540				
Thr	Gly	Pro	Glu	Pro	Pro	Ile	Pro	Gln	Ala	Ser	Pro	Gly	Pro	Pro	Gly
545					550					555					560
Pro	Leu	Ser	Gln	Thr	Pro	Pro	Met	Gln	Arg	Pro	Val	Glu	Pro	Gln	Glu
				565				570						575	
Gly	Pro	His	Lys	Ser	Leu	Val	Ala	His	Arg	Val	Pro	Leu	Lys	Pro	Tyr
			580					585					590		
Ala	Ala	Pro	Val	Pro	Arg	Ser	Gln	Ser	Leu	Gln	Asp	Gln	Pro	Thr	Arg
		595					600					605			
Asn	Leu	Ala	Ala	Phe	Pro	Ala	Ser	His	Asp	Pro	Asp	Pro	Ala	Ile	Pro
610						615					620				
Ala	Pro	Thr	Ala	Thr	Pro	Ser	Ala	Arg	Gly	Ala	Val	Ile	Arg	Gln	Asn
625					630					635					640
Ser	Asp	Pro	Thr	Ser	Glu	Gly	Pro	Gly	Pro	Ser	Pro	Asn	Pro	Pro	Ala
				645					650					655	
Trp	Val	Arg	Pro	Asp	Asn	Glu	Ala	Pro	Pro	Lys	Val	Pro	Gln	Arg	Thr
			660					665					670		
Ser	Ser	Ile	Ala	Thr	Ala	Leu	Asn	Thr	Ser	Gly	Ala	Gly	Gly	Ser	Arg
		675					680					685			
Pro	Ala	Gln	Ala	Val	Arg	Ala	Ser	Asn	Pro	Asp	Leu	Arg	Arg	Ser	Asp
		690					695				700				
Pro	Gly	Trp	Glu	Arg	Ser	Asp	Ser	Val	Leu	Pro	Ala	Ser	His	Gly	His
705					710					715					720
Leu	Pro	Gln	Ala	Gly	Ser	Leu	Glu	Arg	Asn	Arg	Val	Gly	Val	Ser	Ser
				725					730					735	
Lys	Pro	Asp	Ser	Ser	Pro	Val	Leu	Ser	Pro	Gly	Asn	Lys	Ala	Lys	Pro
			740					745					750		
Asp	Asp	His	Arg	Ser	Arg	Pro	Gly	Arg	Pro	Ala	Ser	Tyr	Lys	Arg	Ala
		755					760					765			
Ile	Gly	Glu	Asp	Phe	Val	Leu	Lys	Glu	Arg	Thr	Leu	Asp	Glu	Ala	
		770					775					780			
Pro	Arg	Pro	Pro	Lys	Lys	Ala	Met	Asp	Tyr	Ser	Ser	Ser	Ser	Glu	Glu
785					790					795					800
Val	Glu	Ser	Ser	Glu	Asp	Asp	Glu	Glu	Glu	Gly	Glu	Gly	Gly	Pro	Ala
				805					810					815	
Glu	Gly	Ser	Arg	Asp	Thr	Pro	Gly	Gly	Arg	Ser	Asp	Gly	Asp	Thr	Asp
			820					825					830		
Ser	Val	Ser	Thr	Met	Val	Val	His	Asp	Val	Glu	Glu	Ile	Thr	Gly	Thr
		835					840					845			
Gln	Pro	Pro	Tyr	Gly	Gly	Gly	Thr	Met	Val	Val	Gln	Arg	Thr	Pro	Glu
						855					860				
Glu	Glu	Arg	Asn	Leu	Leu	His	Ala	Asp	Ser	Asn	Gly	Tyr	Thr	Asn	Leu
865					870					875					880
Pro	Asp	Val	Val	Gln	Pro	Ser	His	Ser	Pro	Thr	Glu	Asn	Ser	Lys	Gly
				885						890				895	
Gln	Ser	Pro	Pro	Ser	Lys	Asp	Gly	Ser	Gly	Asp	Tyr	Gln	Ser	Arg	Gly
			900					905					910		
Leu	Val	Lys	Ala	Pro	Gly	Lys	Ser	Ser	Phe	Thr	Met	Phe	Val	Asp	Leu
		915						920				925			
Gly	Ile	Tyr	Gln	Pro	Gly	Gly	Ser	Gly	Asp	Ser	Ile	Pro	Ile	Thr	Ala
		930				935					940				
Leu	Val	Gly	Gly	Glu	Gly	Thr	Arg	Leu	Asp	Gln	Leu	Gln	Tyr	Asp	Val
945					950					955					960
Arg	Lys	Gly	Ser	Val	Val	Asn	Val	Asn	Pro	Thr	Asn	Thr	Arg	Ala	His
				965					970					975	
Ser	Glu	Thr	Pro	Glu	Ile	Arg	Lys	Tyr	Lys	Lys	Arg	Phe	Asn	Ser	Glu
			980					985					990		
Ile	Leu	Cys	Ala	Ala	Leu	Trp	Gly	Val	Asn	Leu	Leu	Val	Gly	Thr	Glu
		995					1000					1005			
Asn	Gly	Leu	Met	Leu	Leu	Asp	Arg	Ser	Gly	Gln	Gly	Lys	Val	Tyr	Gly
						1010				1015					
Leu	Ile	Gly	Arg	Arg	Arg	Phe	Gln	Gln	Met	Asp	Val	Leu	Glu	Gly	Leu
1025						1030				1035					1040

Asn Leu Leu Ile Thr Ile Ser Gly Lys Arg Asn Lys Leu Arg Val Tyr
 1045 1050 1055
 Tyr Leu Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val
 1060 1065 1070
 Glu Lys Lys Gln Gly Trp Thr Thr Val Gly Asp Met Glu Gly Cys Gly
 1075 1080 1085
 His Tyr Arg Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala
 1090 1095 1100
 Leu Lys Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His
 1105 1110 1115 1120
 Lys Phe Met Ala Phe Lys Ser Phe Ala Asp Leu Pro His Arg Pro Leu
 1125 1130 1135
 Leu Val Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr
 1140 1145 1150
 Gly Ser Ser Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Asn Ser
 1155 1160 1165
 Tyr Asp Ile Tyr Ile Pro Val His Ile Gln Ser Gln Ile Thr Pro His
 1170 1175 1180
 Ala Ile Ile Phe Leu Pro Asn Thr Asp Gly Met Glu Met Leu Leu Cys
 1185 1190 1195 1200
 Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr Gly Arg Ile Ile Lys
 1205 1210 1215
 Asp Val Val Leu Gln Trp Gly Glu Met Pro Thr Ser Val Ala Tyr Ile
 1220 1225 1230
 Cys Ser Asn Gln Ile Met Gly Trp Gly Glu Lys Ala Ile Glu Ile Arg
 1235 1240 1245
 Ser Val Glu Thr Gly His Leu Asp Gly Val Phe Met His Lys Arg Ala
 1250 1255 1260
 Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn Asp Lys Val Phe Phe Ala
 1265 1270 1275 1280
 Ser Val Arg Ser Gly Gly Ser Ser Gln Val Tyr Phe Met Thr Leu Asn
 1285 1290 1295
 Arg Asn Cys Ile Met Asn Trp *
 1300 1303

<210> 1816
 <211> 226
 <212> PRT
 <213> Homo sapiens

<400> 1816
 Met Asn Gly Ile Arg Leu Gly Thr Tyr Gly Leu Ala Glu Ala Gly Gly
 1 5 10 15
 Tyr Leu His Thr Ala Glu Gly Thr His Ser Pro Ala Arg Ser Ala Ala
 20 25 30
 Ala Gly Ala Met Ala Gly Val Met Gly Ala Tyr Leu Gly Ser Pro Ile
 35 40 45
 Tyr Met Val Lys Thr His Leu Gln Ala Gln Ala Ser Glu Ile Ala
 50 55 60
 Val Gly His Gln Tyr Lys His Gln Gly Met Phe Gln Ala Leu Thr Glu
 65 70 75 80
 Ile Gly Gln Lys His Gly Leu Val Gly Leu Trp Arg Gly Ala Leu Gly
 85 90 95
 Gly Leu Pro Arg Val Ile Val Gly Ser Ser Thr Gln Leu Cys Thr Phe
 100 105 110
 Ser Ser Thr Lys Asp Leu Leu Ser Gln Trp Glu Ile Phe Pro Pro Gln
 115 120 125
 Ser Trp Lys Leu Ala Leu Val Ala Ala Met Met Ser Gly Ile Ala Val
 130 135 140
 Val Leu Ala Met Ala Pro Phe Asp Val Ala Cys Thr Arg Leu Tyr Asn
 145 150 155 160

Gln Pro Thr Asp Ala Gln Gly Lys Gly Leu Met Tyr Arg Gly Ile Leu
 165 170 175
 Asp Ala Leu Leu Gln Thr Ala Arg Thr Glu Gly Ile Phe Gly Met Tyr
 180 185 190
 Lys Gly Ile Gly Ala Ser Tyr Phe Arg Leu Gly Pro His Thr Ile Leu
 195 200 205
 Ser Leu Phe Phe Trp Asp Gln Leu Arg Ser Leu Tyr Tyr Thr Asp Thr
 210 215 220
 Lys *
 225

<210> 1817
 <211> 195
 <212> PRT
 <213> Homo sapiens

<400> 1817
 Met Leu Ala Tyr Cys Val Gln Asp Ala Thr Val Val Asp Val Glu Lys
 1 5 10 15
 Arg Arg Asn Pro Ser Lys His Tyr Val Tyr Ile Ile Asn Val Thr Trp
 20 25 30
 Ser Asp Ser Thr Ser Gln Thr Ile Tyr Arg Arg Tyr Ser Lys Phe Phe
 35 40 45
 Asp Leu Gln Met Gln Leu Leu Asp Lys Phe Pro Ile Glu Gly Gly Gln
 50 55 60
 Lys Asp Pro Lys Gln Arg Ile Ile Pro Phe Leu Pro Gly Lys Ile Leu
 65 70 75 80
 Phe Arg Arg Ser His Ile Arg Asp Val Ala Val Lys Arg Leu Lys Pro
 85 90 95
 Ile Asp Glu Tyr Cys Arg Ala Leu Val Arg Leu Pro Pro His Ile Ser
 100 105 110
 Gln Cys Asp Glu Val Phe Arg Phe Phe Glu Ala Arg Pro Glu Asp Val
 115 120 125
 Asn Pro Pro Lys Glu Gln Gly Pro Ser Pro Pro Asp Ala Val Leu Pro
 130 135 140
 Tyr Gly Val Asn Lys Gly Lys Gln Glu Leu Lys Ala Gly Pro Asn Trp
 145 150 155 160
 Pro Gly Arg Thr His His Val Val Asn Cys Val Thr Gln Lys Cys Leu
 165 170 175
 Phe Val Phe His Phe Lys Phe Ser Ser Ser Gly Asn Lys Glu Ser Lys
 180 185 190
 Ser Leu *
 194

<210> 1818
 <211> 700
 <212> PRT
 <213> Homo sapiens

<400> 1818
 Met Ala Asp Ala Gly Ile Arg Arg Val Val Pro Ser Asp Leu Tyr Pro
 1 5 10 15
 Leu Val Leu Gly Phe Leu Arg Asp Asn Gln Leu Ser Glu Val Ala Asn
 20 25 30
 Lys Phe Ala Lys Ala Thr Gly Ala Thr Gln Gln Asp Ala Asn Ala Ser
 35 40 45
 Ser Leu Leu Asp Ile Tyr Ser Phe Trp Leu Lys Ser Ala Lys Val Pro
 50 55 60

Glu	Arg	Lys	Leu	Gln	Ala	Asn	Gly	Pro	Val	Ala	Lys	Lys	Ala	Lys	Lys		
65					70					75						80	
Lys	Ala	Ser	Ser	Ser	Asp	Ser	Glu	Asp	Ser	Ser	Glu	Glu	Glu	Glu	Glu	Glu	
				85					90							95	
Val	Gln	Gly	Pro	Pro	Ala	Lys	Lys	Ala	Ala	Val	Pro	Ala	Lys	Arg	Val		
			100					105					110				
Gly	Leu	Pro	Pro	Gly	Lys	Ala	Ala	Ala	Lys	Ala	Ser	Glu	Ser	Ser	Ser		
		115				120						125					
Ser	Glu	Glu	Ser	Ser	Asp	Asp	Asp	Asp	Glu	Glu	Asp	Gln	Lys	Lys	Gln		
		130				135						140					
Pro	Val	Gln	Lys	Gly	Val	Lys	Pro	Gln	Ala	Lys	Ala	Ala	Lys	Ala	Pro		
145					150					155					160		
Pro	Lys	Lys	Ala	Lys	Ser	Ser	Asp	Ser	Asp	Ser	Asp	Ser	Ser	Ser	Glu		
				165					170						175		
Asp	Glu	Pro	Pro	Lys	Asn	Gln	Lys	Pro	Lys	Ile	Thr	Pro	Val	Thr	Val		
			180					185					190				
Lys	Ala	Gln	Thr	Lys	Ala	Pro	Pro	Lys	Pro	Ala	Arg	Ala	Ala	Pro	Lys		
		195					200					205					
Ile	Ala	Asn	Gly	Lys	Ala	Ala	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser		
	210					215					220						
Ser	Ser	Ser	Asp	Asp	Ser	Glu	Glu	Glu	Lys	Ala	Ala	Ala	Thr	Pro	Lys		
225					230					235					240		
Lys	Thr	Val	Pro	Lys	Lys	Gln	Val	Val	Ala	Lys	Ala	Pro	Val	Lys	Ala		
				245					250					255			
Ala	Thr	Thr	Pro	Thr	Arg	Lys	Ser	Ser	Ser	Ser	Glu	Asp	Ser	Ser	Ser		
			260					265					270				
Asp	Glu	Glu	Glu	Glu	Gln	Lys	Lys	Pro	Met	Lys	Asn	Lys	Pro	Gly	Pro		
		275					280					285					
Tyr	Ser	Ser	Val	Pro	Pro	Pro	Ser	Ala	Pro	Pro	Pro	Lys	Lys	Ser	Leu		
	290					295					300						
Gly	Thr	Gln	Pro	Pro	Lys	Lys	Ala	Val	Glu	Lys	Gln	Gln	Pro	Val	Glu		
305					310					315					320		
Ser	Ser	Glu	Asp	Ser	Ser	Asp	Glu	Ser	Asp	Ser	Ser	Ser	Glu	Glu	Glu		
				325					330					335			
Lys	Lys	Pro	Pro	Thr	Lys	Ala	Val	Val	Ser	Lys	Ala	Thr	Thr	Lys	Pro		
			340					345					350				
Pro	Pro	Ala	Lys	Lys	Ala	Ala	Glu	Ser	Ser	Ser	Asp	Ser	Ser	Asp	Ser		
		355					360					365					
Asp	Ser	Ser	Glu	Asp	Asp	Glu	Ala	Pro	Ser	Lys	Pro	Ala	Gly	Thr	Thr		
		370				375					380						
Lys	Asn	Ser	Ser	Asn	Lys	Pro	Ala	Val	Thr	Thr	Lys	Ser	Pro	Ala	Val		
385					390					395					400		
Lys	Pro	Ala	Ala	Ala	Pro	Lys	Gln	Pro	Val	Gly	Gly	Gly	Gln	Lys	Leu		
			405					410						415			
Leu	Thr	Arg	Lys	Ala	Asp	Ser	Ser	Ser	Ser	Glu	Glu	Glu	Ser	Ser	Ser		
			420					425					430				
Ser	Glu	Glu	Glu	Lys	Thr	Lys	Lys	Met	Val	Ala	Thr	Thr	Lys	Pro	Lys		
			435				440					445					
Ala	Thr	Ala	Lys	Ala	Ala	Leu	Ser	Leu	Pro	Ala	Lys	Gln	Ala	Pro	Gln		
			450			455					460						
Gly	Ser	Arg	Asp	Ser	Ser	Ser	Asp	Ser	Asp	Ser	Ser	Ser	Ser	Glu	Glu		
465					470					475					480		
Glu	Glu	Glu	Lys	Thr	Ser	Lys	Ser	Ala	Val	Lys	Lys	Lys	Pro	Gln	Lys		
				485					490					495			
Val	Ala	Gly	Gly	Ala	Ala	Pro	Ser	Lys	Pro	Ala	Ser	Ala	Lys	Lys	Gly		
			500					505					510				
Lys	Ala	Glu	Ser	Ser	Asn	Ser	Ser	Ser	Ser	Asp	Asp	Ser	Ser	Glu	Glu		
		515				520						525					
Glu	Glu	Glu	Lys	Leu	Lys	Gly	Lys	Gly	Ser	Pro	Arg	Pro	Gln	Ala	Pro		
		530				535					540						
Lys	Ala	Asn	Gly	Thr	Ser	Ala	Leu	Thr	Ala	Gln	Asn	Gly	Lys	Ala	Ala		
545					550					555					560		
Lys	Asn	Ser	Glu	Glu	Glu	Glu	Glu	Glu	Lys	Lys	Lys	Ala	Ala	Val	Val		
				565					570					575			

Val Ser Lys Ser Gly Ser Leu Lys Lys Arg Lys Gln Asn Glu Ala Ala
 580 585 590
 Lys Glu Ala Glu Thr Pro Gln Ala Lys Lys Ile Lys Leu Gln Thr Pro
 595 600 605
 Asn Thr Phe Pro Lys Arg Lys Lys Gly Glu Lys Arg Ala Ser Ser Pro
 610 615 620
 Phe Arg Arg Val Arg Glu Glu Glu Ile Glu Val Asp Ser Arg Val Ala
 625 630 635 640
 Asp Asn Ser Phe Asp Ala Lys Arg Gly Ala Ala Gly Asp Trp Gly Glu
 645 650 655
 Arg Ala Asn Gln Val Leu Lys Phe Thr Lys Gly Lys Ser Phe Arg His
 660 665 670
 Glu Lys Thr Lys Lys Lys Arg Gly Ser Tyr Arg Gly Gly Ser Ile Ser
 675 680 685
 Val Gln Val Asn Ser Ile Lys Phe Asp Ser Glu *
 690 695 699

<210> 1819

<211> 1724

<212> PRT

<213> Homo sapiens

<400> 1819

Met Thr Ser Arg Lys Leu Ala Ser Ala Thr Ala Asn Asp Ser Ala Asn
 1 5 10 15
 Pro Leu His Leu Ser Ala Ala Pro Glu Asn Ser Arg Gly Pro Ala Leu
 20 25 30
 Ser Ala Glu His Thr Ser Ser Leu Val Pro Ser Leu His Ile Thr Thr
 35 40 45
 Leu Gly Gln Glu Gln Ala Ile Leu Ser Gly Ala Val Pro Ala Ser Pro
 50 55 60
 Ser Thr Gly Thr Ala Asp Phe Pro Ser Ile Leu Thr Phe Leu Gln Pro
 65 70 75 80
 Thr Glu Asn His Ala Ser Pro Ser Pro Val Pro Glu Met Pro Thr Leu
 85 90 95
 Pro Ala Glu Gly Ser Asp Gly Ser Pro Pro Ala Thr Arg Asp Leu Leu
 100 105 110
 Leu Ser Ser Lys Val Pro Asn Leu Leu Ser Thr Ser Trp Thr Phe Pro
 115 120 125
 Arg Trp Lys Lys Asp Ser Val Thr Ala Ile Leu Gly Lys Asn Glu Glu
 130 135 140
 Ala Asn Val Thr Ile Pro Leu Gln Ala Phe Pro Arg Lys Glu Val Leu
 145 150 155 160
 Ser Leu His Thr Val Asn Gly Phe Val Ser Asp Phe Ser Thr Gly Ser
 165 170 175
 Val Ser Ser Pro Ile Ile Thr Ala Pro Arg Thr Asn Pro Leu Pro Ser
 180 185 190
 Gly Pro Pro Leu Pro Ser Ile Leu Ser Ile Gln Ala Thr Gln Thr Val
 195 200 205
 Phe Pro Ser Leu Leu Ala Phe Ser Ser Thr Lys Pro Glu Val Tyr Ala
 210 215 220
 Ala Ala Val Asp His Ser Gly Leu Pro Ala Ser Ala Pro Lys Gln Val
 225 230 235 240
 Arg Ala Ser Pro Ser Ser Met Asp Val Tyr Asp Ser Leu Thr Ile Gly
 245 250 255
 Asp Met Lys Lys Pro Ala Thr Thr Asp Val Phe Trp Ser Ser Leu Ser
 260 265 270
 Ala Glu Thr Gly Ser Leu Ser Thr Glu Ser Ile Ile Ser Gly Leu Gln
 275 280 285
 Gln Gln Thr Asn Tyr Asp Leu Asn Gly His Thr Ile Ser Thr Thr Ser
 290 295 300

Trp	Glu	Thr	His	Leu	Ala	Pro	Thr	Ala	Pro	Pro	Asn	Gly	Leu	Thr	Ser
305					310					315					320
Ala	Ala	Asp	Ala	Ile	Lys	Ser	Gln	Asp	Phe	Lys	Asp	Thr	Ala	Gly	His
				325					330					335	
Ser	Val	Thr	Ala	Glu	Gly	Phe	Ser	Ile	Gln	Asp	Leu	Val	Leu	Gly	Thr
			340					345					350		
Ser	Ile	Glu	Gln	Pro	Val	Gln	Gln	Ser	Asp	Met	Thr	Met	Val	Gly	Ser
		355					360					365			
His	Ile	Asp	Leu	Trp	Pro	Thr	Ser	Asn	Asn	Asn	His	Ser	Arg	Asp	Phe
	370					375					380				
Gln	Thr	Ala	Glu	Val	Ala	Tyr	Tyr	Ser	Pro	Thr	Thr	Arg	His	Ser	Val
385					390					395					400
Ser	His	Pro	Gln	Leu	Gln	Leu	Pro	Asn	Gln	Pro	Ala	His	Pro	Leu	Leu
			405						410					415	
Leu	Thr	Ser	Pro	Gly	Pro	Thr	Ser	Thr	Gly	Ser	Leu	Gln	Glu	Met	Leu
			420					425					430		
Ser	Asp	Gly	Thr	Asp	Thr	Gly	Ser	Glu	Ile	Ser	Ser	Asp	Ile	Asn	Ser
	435					440						445			
Ser	Pro	Glu	Arg	Asn	Ala	Ser	Thr	Pro	Phe	Gln	Asn	Ile	Leu	Gly	Tyr
	450					455					460				
His	Ser	Ala	Ala	Glu	Ser	Ser	Ile	Ser	Thr	Ser	Val	Phe	Pro	Arg	Thr
465					470					475					480
Ser	Ser	Arg	Val	Leu	Arg	Ala	Ser	Gln	His	Pro	Lys	Lys	Trp	Thr	Gly
			485						490					495	
Ala	Ala	Thr	Asn	Ala	Ala	Asp	Thr	Val	Ser	Ser	Lys	Val	Gln	Pro	Thr
			500					505					510		
Ala	Ala	Ala	Ala	Val	Thr	Leu	Phe	Leu	Arg	Lys	Ser	Ser	Pro	Pro	Ala
	515						520					525			
Leu	Ser	Ala	Ala	Leu	Val	Ala	Lys	Gly	Thr	Ser	Ser	Ser	Pro	Leu	Ala
	530					535					540				
Val	Ala	Ser	Gly	Pro	Ala	Lys	Ser	Ser	Ser	Met	Thr	Thr	Leu	Ala	Lys
545					550					555					560
Asn	Val	Thr	Asn	Lys	Ala	Ala	Ser	Gly	Pro	Lys	Arg	Thr	Pro	Gly	Ala
			565						570					575	
Val	His	Thr	Ala	Phe	Pro	Phe	Thr	Pro	Thr	Tyr	Met	Tyr	Ala	Arg	Thr
		580						585					590		
Gly	His	Thr	Ser	Thr	His	Thr	Ala	Met	Gln	Gly	Asn	Met	Asp	Thr	
	595					600					605				
Ala	Ser	Gly	Leu	Leu	Ser	Thr	Tyr	Leu	Pro	Arg	Lys	Pro	Gln	Ala	
	610					615				620					
Met	His	Thr	Gly	Leu	Pro	Asn	Pro	Thr	Asn	Leu	Glu	Met	Pro	Arg	Ala
625					630					635					640
Ser	Thr	Pro	Arg	Pro	Leu	Thr	Val	Thr	Ala	Ala	Leu	Thr	Ser	Ile	Thr
			645						650					655	
Ala	Ser	Val	Lys	Ala	Thr	Arg	Leu	Pro	Pro	Leu	Arg	Ala	Glu	Asn	Thr
		660						665					670		
Asp	Ala	Val	Leu	Pro	Ala	Ala	Ser	Ala	Ala	Val	Val	Thr	Thr	Gly	Lys
	675						680					685			
Met	Ala	Ser	Asn	Leu	Glu	Cys	Gln	Met	Ser	Ser	Lys	Leu	Leu	Val	Lys
	690					695					700				
Thr	Val	Leu	Phe	Leu	Thr	Gln	Arg	Arg	Val	Gln	Ile	Ser	Glu	Ser	Leu
705					710					715					720
Lys	Phe	Ser	Ile	Ala	Lys	Gly	Leu	Thr	Gln	Ala	Leu	Arg	Lys	Ala	Phe
			725						730					735	
His	Gln	Asn	Asp	Val	Ser	Ala	His	Val	Asp	Ile	Leu	Glu	Tyr	Ser	His
		740						745					750		
Asn	Val	Thr	Val	Gly	Tyr	Tyr	Ala	Thr	Lys	Gly	Lys	Leu	Val	Tyr	Leu
	755						760					765			
Pro	Ala	Val	Val	Ile	Glu	Met	Leu	Gly	Val	Tyr	Gly	Val	Ser	Asn	Val
	770					775						780			
Thr	Ala	Asp	Leu	Lys	Gln	His	Thr	Pro	His	Leu	Gln	Ser	Val	Ala	Val
785					790					795					800
Leu	Ala	Ser	Pro	Trp	Asn	Pro	Gln	Pro	Ala	Gly	Tyr	Phe	Gln	Leu	Lys
			805						810					815	

Thr Val Leu Gln Phe Val Ser Gln Ala Asp Asn Ile Gln Ser Cys Lys
 820 825 830
 Phe Ala Gln Thr Met Glu Gln Arg Leu Gln Lys Ala Phe Gln Asp Ala
 835 840 845
 Glu Arg Lys Val Leu Asn Thr Lys Ser Asn Leu Thr Ile Gln Ile Val
 850 855 860
 Ser Thr Ser Asn Ala Ser Gln Ala Val Thr Leu Val Tyr Val Val Gly
 865 870 875 880
 Asn Gln Ser Thr Phe Leu Asn Gly Thr Val Ala Ser Ser Leu Leu Ser
 885 890 895
 Gln Leu Ser Ala Glu Leu Val Gly Phe Tyr Leu Thr Tyr Pro Pro Leu
 900 905 910
 Thr Ile Ala Glu Pro Leu Glu Tyr Pro Asn Leu Asp Ile Ser Glu Thr
 915 920 925
 Thr Arg Asp Tyr Trp Val Ile Thr Val Leu Gln Gly Val Asp Asn Ser
 930 935 940
 Leu Val Gly Leu His Asn Gln Ser Phe Ala Arg Val Met Glu Gln Arg
 945 950 955 960
 Leu Ala Gln Leu Phe Met Met Ser Gln Gln Gln Gly Arg Arg Phe Lys
 965 970 975
 Arg Ala Thr Thr Leu Gly Ser Tyr Thr Val Gln Met Val Lys Met Gln
 980 985 990
 Arg Val Pro Gly Pro Lys Asp Pro Ala Glu Leu Thr Tyr Thr Leu
 995 1000 1005
 Tyr Asn Gly Lys Pro Leu Leu Gly Thr Val Ala Ala Lys Ile Leu Ser
 1010 1015 1020
 Thr Ile Asp Ser Gln Arg Met Ala Leu Thr Leu His His Val Val Leu
 1025 1030 1035 1040
 Leu Gln Ala Asp Pro Val Val Lys Asn Pro Pro Asn Asn Leu Trp Ile
 1045 1050 1055
 Ile Ala Ala Val Leu Ala Pro Ile Ala Val Val Thr Val Ile Ile Ile
 1060 1065 1070
 Ile Ile Thr Ala Val Leu Cys Arg Lys Asn Lys Asn Asp Phe Lys Pro
 1075 1080 1085
 Asp Thr Met Ile Asn Leu Pro Gln Arg Ala Lys Pro Val Gln Gly Phe
 1090 1095 1100
 Asp Tyr Ala Lys Gln His Leu Gly Gln Gln Gly Ala Asp Glu Glu Val
 1105 1110 1115 1120
 Ile Pro Val Thr Gln Glu Thr Val Val Leu Pro Leu Pro Ile Arg Asp
 1125 1130 1135
 Ala Pro Gln Glu Arg Asp Val Ala Gln Asp Gly Ser Thr Ile Lys Thr
 1140 1145 1150
 Ala Lys Ser Thr Glu Thr Arg Lys Ser Arg Ser Pro Ser Glu Asn Gly
 1155 1160 1165
 Ser Val Ile Ser Asn Glu Ser Gly Lys Pro Ser Ser Gly Arg Arg Ser
 1170 1175 1180
 Pro Gln Asn Val Met Ala Gln Gln Lys Val Thr Lys Glu Glu Ala Arg
 1185 1190 1195 1200
 Lys Arg Asn Val Pro Ala Ser Asp Glu Glu Glu Gly Ala Val Leu Phe
 1205 1210 1215
 Asp Asn Ser Ser Lys Val Ala Ala Glu Pro Phe Asp Thr Ser Ser Gly
 1220 1225 1230
 Ser Val Gln Leu Ile Ala Ile Lys Pro Thr Ala Leu Pro Met Val Pro
 1235 1240 1245
 Pro Thr Ser Asp Arg Ser Gln Glu Ser Ser Ala Val Leu Asn Gly Glu
 1250 1255 1260
 Val Asn Lys Ala Leu Lys Gln Lys Ser Asp Ile Glu His Tyr Arg Asn
 1265 1270 1275 1280
 Lys Leu Arg Leu Lys Ala Lys Arg Lys Gly Tyr Tyr Asp Phe Pro Ala
 1285 1290 1295
 Val Glu Thr Ser Lys Gly Leu Thr Glu Arg Lys Lys Met Tyr Glu Lys
 1300 1305 1310
 Ala Pro Lys Glu Met Glu His Val Leu Asp Pro Asp Ser Glu Leu Cys
 1315 1320 1325

Ala Pro Phe Thr Glu Ser Lys Asn Arg Gln Gln Met Lys Asn Ser Val
 1330 1335 1340
 Tyr Arg Ser Arg Gln Ser Leu Asn Ser Pro Ser Pro Gly Glu Thr Glu
 1345 1350 1355 1360
 Met Asp Leu Leu Val Thr Arg Glu Arg Pro Arg Arg Gly Ile Arg Asn
 1365 1370 1375
 Ser Gly Tyr Asp Thr Glu Pro Glu Ile Ile Glu Glu Thr Asn Ile Asp
 1380 1385 1390
 Arg Val Pro Glu Pro Arg Gly Tyr Ser Arg Ser Arg Gln Val Lys Gly
 1395 1400 1405
 His Ser Glu Thr Ser Thr Leu Ser Ser Gln Pro Ser Ile Asp Glu Val
 1410 1415 1420
 Arg Gln Gln Met His Met Leu Leu Glu Glu Ala Phe Ser Leu Ala Ser
 1425 1430 1435 1440
 Ala Gly His Ala Gly Gln Ser Arg His Gln Glu Ala Tyr Gly Ser Ala
 1445 1450 1455
 Gln His Leu Pro Tyr Ser Glu Val Val Thr Ser Ala Pro Gly Thr Met
 1460 1465 1470
 Thr Arg Pro Arg Ala Gly Val Gln Trp Val Pro Thr Tyr Arg Pro Glu
 1475 1480 1485
 Met Tyr Gln Tyr Ser Leu Pro Arg Pro Ala Tyr Arg Phe Ser Gln Leu
 1490 1495 1500
 Pro Glu Met Val Met Gly Ser Pro Pro Pro Pro Val Pro Pro Arg Thr
 1505 1510 1515 1520
 Gly Pro Val Ala Val Ala Ser Leu Arg Arg Ser Thr Ser Asp Ile Gly
 1525 1530 1535
 Ser Lys Thr Arg Met Ala Glu Ser Thr Gly Pro Glu Pro Ala Gln Leu
 1540 1545 1550
 His Asp Ser Ala Ser Phe Thr Gln Met Ser Arg Gly Pro Val Ser Val
 1555 1560 1565
 Thr Gln Leu Asp Gln Ser Ala Leu Asn Tyr Ser Gly Asn Thr Val Pro
 1570 1575 1580
 Ala Val Phe Ala Ile Pro Ala Ala Asn Arg Pro Gly Phe Thr Gly Tyr
 1585 1590 1595 1600
 Phe Ile Pro Thr Pro Pro Ser Ser Tyr Arg Asn Gln Ala Trp Met Ser
 1605 1610 1615
 Tyr Ala Gly Glu Asn Glu Leu Pro Ser Gln Trp Ala Asp Ser Val Pro
 1620 1625 1630
 Leu Pro Gly Tyr Ile Glu Ala Tyr Pro Arg Ser Arg Tyr Pro Gln Ser
 1635 1640 1645
 Ser Pro Ser Arg Leu Pro Arg Gln Tyr Ser Gln Pro Ala Asn Leu His
 1650 1655 1660
 Pro Ser Leu Glu Gln Ala Pro Ala Pro Ser Thr Ala Ala Ser Gln Gln
 1665 1670 1675 1680
 Ser Leu Ala Glu Asn Asp Pro Ser Asp Ala Pro Leu Thr Asn Ile Ser
 1685 1690 1695
 Thr Ala Ala Leu Val Lys Ala Ile Arg Glu Glu Val Ala Lys Leu Ala
 1700 1705 1710
 Lys Lys Gln Thr Asp Met Phe Glu Phe Gln Val *
 1715 1720 1723

<210> 1820

<211> 582

<212> PRT

<213> Homo sapiens

<400> 1820

Met Thr Gly Phe Met Lys Gly Leu Tyr Thr Asp Ala Glu Met Lys Ser
 1 5 10 15
 Asp Asn Val Lys Asp Lys Asp Ala Lys Ile Ser Phe Leu Gln Lys Ala
 20 25 30

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Ile Asp Val Val Val Met Val Ser Gly Glu Pro Leu Leu Ala Lys Pro
   35                               40                               45
Ala Arg Ile Val Ala Gly His Glu Pro Glu Arg Thr Asn Glu Leu Leu
   50                               55                               60
Gln Ile Ile Gly Lys Cys Cys Leu Asn Lys Leu Ser Ser Asp Asp Ala
   65                               70                               75                               80
Val Arg Arg Val Leu Ala Gly Glu Lys Gly Glu Val Lys Gly Arg Ala
   85                               90                               95
Ser Leu Thr Ser Arg Ser Gln Glu Leu Asp Asn Lys Asn Val Arg Glu
  100                               105                               110
Glu Glu Ser Arg Val His Lys Asn Thr Glu Asp Arg Gly Asp Ala Glu
  115                               120                               125
Ile Lys Glu Arg Ser Thr Ser Arg Asp Arg Lys Gln Lys Glu Glu Leu
  130                               135                               140
Lys Glu Asp Arg Lys Pro Arg Glu Lys Asp Lys Asp Lys Glu Lys Ala
  145                               150                               155                               160
Lys Glu Asn Gly Gly Asn Arg His Arg Glu Gly Glu Arg Glu Arg Ala
  165                               170                               175
Lys Ala Arg Ala Arg Pro Asp Asn Glu Arg Gln Lys Asp Arg Gly Asn
  180                               185                               190
Arg Glu Arg Asp Arg Asp Ser Glu Arg Lys Lys Glu Thr Glu Arg Lys
  195                               200                               205
Ser Glu Gly Gly Lys Glu Lys Glu Arg Leu Arg Asp Arg Asp Arg Glu
  210                               215                               220
Arg Asp Arg Asp Lys Gly Lys Asp Arg Asp Arg Arg Arg Val Lys Asn
  225                               230                               235                               240
Gly Glu His Ser Trp Asp Leu Asp Arg Glu Asn Asn Arg Glu His Asp
  245                               250                               255
Lys Pro Glu Lys Lys Ser Ala Ser Ser Gly Glu Met Ser Lys Lys Leu
  260                               265                               270
Ser Asp Gly Thr Phe Lys Asp Ser Lys Ala Glu Thr Glu Thr Glu Ile
  275                               280                               285
Ser Thr Arg Ala Ser Lys Ser Leu Thr Thr Lys Thr Ser Lys Arg Arg
  290                               295                               300
Ser Lys Asn Ser Val Glu Gly Asp Ser Thr Ser Asp Ala Glu Gly Asp
  305                               310                               315                               320
Ala Gly Pro Ala Gly Gln Asp Lys Ser Glu Val Pro Glu Thr Pro Glu
  325                               330                               335
Ile Pro Asn Glu Leu Ser Ser Asn Ile Arg Arg Ile Pro Arg Pro Gly
  340                               345                               350
Ser Ala Arg Pro Ala Pro Pro Arg Val Lys Arg Gln Asp Ser Met Glu
  355                               360                               365
Ala Leu Gln Met Asp Arg Ser Gly Ser Gly Lys Thr Val Ser Asn Val
  370                               375                               380
Ile Thr Glu Ser His Asn Ser Asp Asn Glu Glu Asp Asp Gln Phe Val
  385                               390                               395                               400
Val Glu Ala Ala Pro Gln Leu Ser Glu Met Ser Glu Ile Glu Met Val
  405                               410                               415
Thr Ala Val Glu Leu Glu Glu Glu Glu Lys His Gly Gly Leu Val Lys
  420                               425                               430
Lys Ile Leu Glu Thr Lys Lys Asp Tyr Glu Lys Leu Gln Gln Ser Pro
  435                               440                               445
Lys Pro Gly Glu Lys Glu Arg Ser Leu Phe Glu Ser Ala Trp Lys Lys
  450                               455                               460
Glu Lys Asp Ile Val Ser Lys Glu Ile Glu Lys Leu Arg Thr Ser Ile
  465                               470                               475                               480
Gln Thr Leu Cys Lys Ser Ala Leu Pro Leu Gly Lys Ile Met Asp Tyr
  485                               490                               495
Ile Gln Glu Asp Val Asp Ala Met Gln Asn Glu Leu Gln Met Trp His
  500                               505                               510
Ser Glu Asn Arg Gln His Ala Glu Ala Leu Gln Gln Glu Gln Arg Ile
  515                               520                               525
Thr Asp Cys Ala Val Glu Pro Leu Lys Ala Glu Leu Ala Glu Leu Glu
  530                               535                               540

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Gln Leu Ile Lys Asp Gln Gln Asp Lys Ile Cys Ala Val Lys Ala Asn
 545 550 555 560
 Ile Leu Lys Asn Glu Glu Lys Ile Gln Lys Met Val Tyr Ser Ile Asn
 565 570 575
 Leu Thr Ser Arg Arg *
 580 581

<210> 1821
 <211> 1453
 <212> PRT
 <213> Homo sapiens

<400> 1821
 Met Arg Thr Leu Gly Thr Cys Leu Ala Thr Leu Ala Gly Leu Leu Leu
 1 5 10 15
 Thr Ala Ala Gly Glu Thr Phe Ser Gly Gly Cys Leu Phe Asp Glu Pro
 20 25 30
 Tyr Ser Thr Cys Gly Tyr Ser Gln Ser Glu Gly Asp Asp Phe Asn Trp
 35 40 45
 Glu Gln Val Asn Thr Leu Thr Lys Pro Thr Ser Asp Pro Trp Met Pro
 50 55 60
 Ser Gly Ser Phe Met Leu Val Asn Ala Ser Gly Arg Pro Glu Gly Gln
 65 70 75 80
 Arg Ala His Leu Leu Leu Pro Gln Leu Lys Glu Asn Asp Thr His Cys
 85 90 95
 Ile Asp Phe His Tyr Phe Val Ser Ser Lys Ser Asn Ser Pro Pro Gly
 100 105 110
 Leu Leu Asn Val Tyr Val Lys Val Asn Asn Gly Pro Leu Gly Asn Pro
 115 120 125
 Ile Trp Asn Ile Ser Gly Asp Pro Thr Arg Thr Trp Asn Arg Ala Glu
 130 135 140
 Leu Ala Ile Ser Thr Phe Trp Pro Asn Phe Tyr Gln Val Ile Phe Glu
 145 150 155 160
 Val Ile Thr Ser Gly His Gln Gly Tyr Leu Ala Ile Asp Glu Val Lys
 165 170 175
 Val Leu Gly His Pro Cys Thr Arg Thr Pro His Phe Leu Arg Ile Gln
 180 185 190
 Asn Val Glu Val Asn Ala Gly Gln Phe Ala Thr Phe Gln Cys Ser Ala
 195 200 205
 Ile Gly Arg Thr Val Ala Gly Asp Arg Leu Trp Leu Gln Gly Ile Asp
 210 215 220
 Val Arg Asp Ala Pro Leu Lys Glu Ile Lys Val Thr Ser Ser Arg Arg
 225 230 235 240
 Phe Ile Ala Ser Phe Asn Val Val Asn Thr Thr Lys Arg Asp Ala Gly
 245 250 255
 Lys Tyr Arg Cys Met Ile Arg Thr Glu Gly Gly Val Gly Ile Ser Asn
 260 265 270
 Tyr Ala Glu Leu Val Val Lys Glu Pro Pro Val Pro Ile Ala Pro Pro
 275 280 285
 Gln Leu Ala Ser Val Gly Ala Thr Tyr Leu Trp Ile Gln Leu Asn Ala
 290 295 300
 Asn Ser Ile Asn Gly Asp Gly Pro Ile Val Ala Arg Glu Val Glu Tyr
 305 310 315 320
 Cys Thr Ala Ser Gly Ser Trp Asn Asp Arg Gln Pro Val Asp Ser Thr
 325 330 335
 Ser Tyr Lys Ile Gly His Leu Asp Pro Asp Thr Glu Tyr Glu Ile Ser
 340 345 350
 Val Leu Leu Thr Arg Pro Gly Glu Gly Gly Thr Gly Ser Pro Gly Pro
 355 360 365
 Ala Leu Arg Thr Arg Thr Lys Cys Ala Asp Pro Met Arg Gly Pro Arg
 370 375 380

Lys Leu Glu Val Val Glu Val Lys Ser Arg Gln Ile Thr Ile Arg Trp
 385 390 395 400
 Glu Pro Phe Gly Tyr Asn Val Thr Arg Cys His Ser Tyr Asn Leu Thr
 405 410 415
 Val His Tyr Cys Tyr Gln Val Gly Gly Gln Glu Gln Val Arg Glu Glu
 420 425 430
 Val Ser Trp Asp Thr Glu Asn Ser His Pro Gln His Thr Ile Thr Asn
 435 440 445
 Leu Ser Pro Tyr Thr Asn Val Ser Val Lys Leu Ile Leu Met Asn Pro
 450 455 460
 Glu Gly Arg Lys Glu Ser Gln Glu Leu Ile Val Gln Thr Asp Glu Asp
 465 470 475 480
 Leu Pro Gly Ala Val Pro Thr Glu Ser Ile Gln Gly Ser Thr Phe Glu
 485 490 495
 Glu Lys Ile Phe Leu Gln Trp Arg Glu Pro Thr Gln Thr Tyr Gly Val
 500 505 510
 Ile Thr Leu Tyr Glu Ile Thr Tyr Lys Ala Val Ser Ser Phe Asp Pro
 515 520 525
 Glu Ile Asp Leu Ser Asn Gln Ser Gly Arg Val Ser Lys Leu Gly Asn
 530 535 540
 Glu Thr His Phe Leu Phe Phe Gly Leu Tyr Pro Gly Thr Thr Tyr Ser
 545 550 555 560
 Phe Thr Ile Arg Ala Ser Thr Ala Lys Gly Phe Gly Pro Pro Ala Thr
 565 570 575
 Asn Gln Phe Thr Thr Lys Ile Ser Ala Pro Ser Met Pro Ala Tyr Glu
 580 585 590
 Leu Glu Thr Pro Leu Asn Gln Thr Asp Asn Thr Val Thr Val Met Leu
 595 600 605
 Lys Pro Ala His Ser Arg Gly Ala Pro Val Ser Val Tyr Gln Ile Val
 610 615 620
 Val Glu Glu Glu Arg Pro Arg Arg Thr Lys Lys Thr Thr Glu Ile Leu
 625 630 635 640
 Lys Cys Tyr Pro Val Pro Ile His Phe Gln Asn Ala Ser Leu Leu Asn
 645 650 655
 Ser Gln Tyr Tyr Phe Ala Ala Glu Phe Pro Ala Asp Ser Leu Gln Ala
 660 665 670
 Ala Gln Pro Phe Thr Ile Gly Asp Asn Lys Thr Tyr Asn Gly Tyr Trp
 675 680 685
 Asn Thr Pro Leu Leu Pro Tyr Lys Ser Tyr Arg Ile Tyr Phe Gln Ala
 690 695 700
 Ala Ser Arg Ala Asn Gly Glu Thr Lys Ile Asp Cys Val Gln Val Ala
 705 710 715 720
 Thr Lys Gly Ala Ala Thr Pro Lys Pro Val Pro Glu Pro Glu Lys Gln
 725 730 735
 Thr Asp His Thr Val Lys Ile Ala Gly Val Ile Ala Gly Ile Leu Leu
 740 745 750
 Phe Val Ile Ile Phe Leu Gly Val Val Leu Val Met Lys Lys Arg Lys
 755 760 765
 Leu Ala Lys Lys Arg Lys Glu Thr Met Ser Ser Thr Arg Gln Glu Met
 770 775 780
 Thr Val Met Val Asn Ser Met Asp Lys Ser Tyr Ala Glu Gln Gly Thr
 785 790 795 800
 Asn Cys Asp Glu Ala Phe Ser Phe Met Asp Thr His Asn Leu Asn Gly
 805 810 815
 Arg Ser Val Ser Ser Pro Ser Ser Phe Thr Met Lys Thr Asn Thr Leu
 820 825 830
 Ser Thr Ser Val Pro Asn Ser Tyr Tyr Pro Asp Glu Thr His Thr Met
 835 840 845
 Ala Ser Asp Thr Ser Ser Leu Val Gln Ser His Thr Tyr Lys Lys Arg
 850 855 860
 Glu Pro Ala Asp Val Pro Tyr Gln Thr Gly Gln Leu His Pro Ala Ile
 865 870 875 880
 Arg Val Ala Asp Leu Leu Gln His Ile Thr Gln Met Lys Cys Ala Glu
 885 890 895

Gly Tyr Gly Phe Lys Glu Glu Tyr Glu Ser Phe Phe Glu Gly Gln Ser
 900 905 910
 Ala Pro Trp Asp Ser Ala Lys Lys Asp Glu Asn Arg Met Lys Asn Arg
 915 920 925
 Tyr Gly Asn Ile Ile Ala Tyr Asp His Ser Arg Val Arg Leu Gln Thr
 930 935 940
 Ile Glu Gly Asp Thr Asn Ser Asp Tyr Ile Asn Gly Asn Tyr Ile Asp
 945 950 955 960
 Gly Tyr His Arg Pro Asn His Tyr Ile Ala Thr Gln Gly Pro Met Gln
 965 970 975
 Glu Thr Ile Tyr Asp Phe Trp Arg Met Val Trp His Glu Asn Thr Ala
 980 985 990
 Ser Ile Ile Met Val Thr Asn Leu Val Glu Val Gly Arg Val Lys Cys
 995 1000 1005
 Cys Lys Tyr Trp Pro Asp Asp Thr Glu Ile Tyr Lys Asp Ile Lys Val
 1010 1015 1020
 Thr Leu Ile Glu Thr Glu Leu Leu Ala Glu Tyr Val Ile Arg Thr Phe
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 Ala Val Glu Lys Arg Gly Val His Glu Ile Arg Glu Ile Arg Gln Phe
 1045 1050 1055
 His Phe Thr Gly Trp Pro Asp His Gly Val Pro Tyr His Ala Thr Gly
 1060 1065 1070
 Leu Leu Gly Phe Val Arg Gln Val Lys Ser Lys Ser Pro Pro Ser Ala
 1075 1080 1085
 Gly Pro Leu Val Val His Cys Ser Ala Gly Ala Gly Arg Thr Gly Cys
 1090 1095 1100
 Phe Ile Val Ile Asp Ile Met Leu Asp Met Ala Glu Arg Glu Gly Val
 1105 1110 1115 1120
 Val Asp Ile Tyr Asn Cys Val Arg Glu Leu Arg Ser Arg Arg Val Asn
 1125 1130 1135
 Met Val Gln Thr Glu Glu Gln Tyr Val Phe Ile His Asp Ala Ile Leu
 1140 1145 1150
 Glu Ala Cys Leu Cys Gly Asp Thr Ser Val Pro Ala Ser Gln Val Arg
 1155 1160 1165
 Ser Leu Tyr Tyr Asp Met Asn Lys Leu Asp Pro Gln Thr Asn Ser Ser
 1170 1175 1180
 Gln Ile Lys Glu Glu Phe Arg Thr Leu Asn Met Val Thr Pro Thr Leu
 1185 1190 1195 1200
 Arg Val Glu Asp Cys Ser Ile Ala Leu Leu Pro Arg Asn His Glu Lys
 1205 1210 1215
 Asn Arg Cys Met Asp Ile Leu Pro Pro Asp Arg Cys Leu Pro Phe Leu
 1220 1225 1230
 Ile Thr Ile Asp Gly Glu Ser Ser Asn Tyr Ile Asn Ala Ala Leu Met
 1235 1240 1245
 Asp Ser Tyr Lys Gln Pro Ser Ala Phe Ile Val Thr Gln His Pro Leu
 1250 1255 1260
 Pro Asn Thr Val Lys Asp Phe Trp Arg Leu Val Leu Asp Tyr His Cys
 1265 1270 1275 1280
 Thr Ser Val Val Met Leu Asn Asp Val Asp Pro Ala Gln Leu Cys Pro
 1285 1290 1295
 Gln Tyr Trp Pro Glu Asn Gly Val His Arg His Gly Pro Ile Gln Val
 1300 1305 1310
 Glu Phe Val Ser Ala Asp Leu Glu Glu Asp Ile Ile Ser Arg Ile Phe
 1315 1320 1325
 Arg Ile Tyr Asn Ala Ala Arg Pro Gln Asp Gly Tyr Arg Met Val Gln
 1330 1335 1340
 Gln Phe Gln Phe Leu Gly Trp Pro Met Tyr Arg Asp Thr Pro Val Ser
 1345 1350 1355 1360
 Lys Arg Ser Phe Leu Lys Leu Ile Arg Gln Val Asp Lys Trp Gln Glu
 1365 1370 1375
 Glu Tyr Asn Gly Gly Glu Gly Arg Thr Val Val His Cys Leu Asn Gly
 1380 1385 1390
 Gly Gly Arg Ser Gly Thr Phe Cys Ala Ile Ser Ile Val Cys Glu Met
 1395 1400 1405

Leu Arg His Gln Arg Thr Val Asp Val Phe His Ala Val Lys Thr Leu
 1410 1415 1420
 Arg Asn Asn Lys Pro Asn Met Val Asp Leu Leu Asp Gln Tyr Lys Phe
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 Cys Tyr Glu Val Ala Leu Glu Tyr Leu Asn Ser Gly *
 1445 1450 1452

<210> 1822
 <211> 1873
 <212> PRT
 <213> Homo sapiens

<400> 1822
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 Ala Ser Phe Leu Arg Ala Ala Arg Ala Gly Asn Leu Asp Lys Val Val
 35 40 45
 Glu Tyr Leu Lys Gly Gly Ile Asp Ile Asn Thr Cys Asn Gln Asn Gly
 50 55 60
 Leu Asn Ala Leu His Leu Ala Ala Lys Glu Gly His Val Gly Leu Val
 65 70 75 80
 Gln Glu Leu Leu Gly Arg Gly Ser Ser Val Asp Ser Ala Thr Lys Lys
 85 90 95
 Gly Asn Thr Ala Leu His Ile Ala Ser Leu Ala Gly Gln Ala Glu Val
 100 105 110
 Val Lys Val Leu Val Lys Glu Gly Ala Asn Ile Asn Ala Gln Ser Gln
 115 120 125
 Asn Gly Phe Thr Pro Leu Tyr Met Ala Ala Gln Glu Asn His Ile Asp
 130 135 140
 Val Val Lys Tyr Leu Leu Glu Asn Gly Ala Asn Gln Ser Thr Ala Thr
 145 150 155 160
 Glu Asp Gly Phe Thr Pro Leu Ala Val Ala Leu Gln Gln Gly His Asn
 165 170 175
 Gln Ala Val Ala Ile Leu Leu Glu Asn Asp Thr Lys Gly Lys Val Arg
 180 185 190
 Leu Pro Ala Leu His Ile Ala Ala Arg Lys Asp Asp Thr Lys Ser Ala
 195 200 205
 Ala Leu Leu Leu Gln Asn Asp His Asn Ala Asp Val Gln Ser Lys Met
 210 215 220
 Met Val Asn Arg Thr Thr Glu Ser Gly Phe Thr Pro Leu His Ile Ala
 225 230 235 240
 Ala His Tyr Gly Asn Val Asn Val Ala Thr Leu Leu Leu Asn Arg Gly
 245 250 255
 Ala Ala Val Asp Phe Thr Ala Arg Asn Gly Ile Thr Pro Leu His Val
 260 265 270
 Ala Ser Lys Arg Gly Asn Thr Asn Met Val Lys Leu Leu Asp Arg
 275 280 285
 Gly Gly Gln Ile Asp Ala Lys Thr Arg Asp Gly Leu Thr Pro Leu His
 290 295 300
 Cys Ala Ala Arg Ser Gly His Asp Gln Val Val Glu Leu Leu Leu Glu
 305 310 315 320
 Arg Gly Ala Pro Leu Leu Ala Arg Thr Lys Asn Gly Leu Ser Pro Leu
 325 330 335
 His Met Ala Ala Gln Gly Asp His Val Glu Cys Val Lys His Leu Leu
 340 345 350
 Gln His Lys Ala Pro Val Asp Asp Val Thr Leu Asp Tyr Leu Thr Ala
 355 360 365
 Leu His Val Ala Ala His Cys Gly His Tyr Arg Val Thr Lys Leu Leu
 370 375 380

Leu	Asp	Lys	Arg	Ala	Asn	Pro	Asn	Ala	Arg	Ala	Leu	Asn	Gly	Phe	Thr	385	390	395	400
Pro	Leu	His	Ile	Ala	Cys	Lys	Lys	Asn	Arg	Ile	Lys	Val	Met	Glu	Leu	405	410	415	
Leu	Val	Lys	Tyr	Gly	Ala	Ser	Ile	Gln	Ala	Ile	Thr	Glu	Ser	Gly	Leu	420	425	430	
Thr	Pro	Ile	His	Val	Ala	Ala	Phe	Met	Gly	His	Leu	Asn	Ile	Val	Leu	435	440	445	
Leu	Leu	Gln	Asn	Gly	Ala	Ser	Pro	Asp	Val	Thr	Asn	Ile	Arg	Gly		450	455	460	
Glu	Thr	Ala	Leu	His	Met	Ala	Ala	Arg	Ala	Gly	Gln	Val	Glu	Val	Val	465	470	475	480
Arg	Cys	Leu	Leu	Arg	Asn	Gly	Ala	Leu	Val	Asp	Ala	Arg	Ala	Arg	Glu	485	490	495	
Glu	Gln	Thr	Pro	Leu	His	Ile	Ala	Ser	Arg	Leu	Gly	Lys	Thr	Glu	Ile	500	505	510	
Val	Gln	Leu	Leu	Gln	His	Met	Ala	His	Pro	Asp	Ala	Ala	Thr	Thr		515	520	525	
Asn	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ser	Ala	Arg	Glu	Gly	Gln	Val	Asp	530	535	540	
Val	Ala	Ser	Val	Leu	Leu	Glu	Ala	Gly	Ala	Ala	His	Ser	Leu	Ala	Thr	545	550	555	560
Lys	Lys	Gly	Phe	Thr	Pro	Leu	His	Val	Ala	Ala	Lys	Tyr	Gly	Ser	Leu	565	570	575	
Asp	Val	Ala	Lys	Leu	Leu	Gln	Arg	Arg	Ala	Ala	Ala	Asp	Ser	Ala		580	585	590	
Gly	Lys	Asn	Gly	Leu	Thr	Pro	Leu	His	Val	Ala	Ala	His	Tyr	Asp	Asn	595	600	605	
Gln	Lys	Val	Ala	Leu	Leu	Leu	Glu	Lys	Gly	Ala	Ser	Pro	His	Ala		610	615	620	
Thr	Ala	Lys	Asn	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala	Lys	Lys	Asn	625	630	635	640
Gln	Met	Gln	Ile	Ala	Ser	Thr	Leu	Leu	Asn	Tyr	Gly	Ala	Glu	Thr	Asn	645	650	655	
Ile	Val	Thr	Lys	Gln	Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ser	Gln	Glu	660	665	670	
Gly	His	Thr	Asp	Met	Val	Thr	Leu	Leu	Leu	Asp	Lys	Gly	Ala	Asn	Ile	675	680	685	
His	Met	Ser	Thr	Lys	Ser	Gly	Leu	Thr	Ser	Leu	His	Leu	Ala	Ala	Gln	690	695	700	
Glu	Asp	Lys	Val	Asn	Val	Ala	Asp	Ile	Leu	Thr	Lys	His	Gly	Ala	Asp	705	710	715	720
Gln	Asp	Ala	His	Thr	Lys	Leu	Gly	Tyr	Thr	Pro	Leu	Ile	Val	Ala	Cys	725	730	735	
His	Tyr	Gly	Asn	Val	Lys	Met	Val	Asn	Phe	Leu	Leu	Lys	Gln	Gly	Ala	740	745	750	
Asn	Val	Asn	Ala	Lys	Thr	Lys	Asn	Gly	Tyr	Thr	Pro	Leu	His	Gln	Ala	755	760	765	
Ala	Gln	Gln	Gly	His	Thr	His	Ile	Ile	Asn	Val	Leu	Leu	Gln	His	Gly	770	775	780	
Ala	Lys	Pro	Asn	Ala	Thr	Thr	Ala	Asn	Gly	Asn	Thr	Ala	Leu	Ala	Ile	785	790	795	800
Ala	Lys	Arg	Leu	Gly	Tyr	Ile	Ser	Val	Val	Asp	Thr	Leu	Lys	Val	Val	805	810	815	
Thr	Glu	Glu	Val	Thr	Thr	Thr	Thr	Thr	Thr	Ile	Thr	Glu	Lys	His	Lys	820	825	830	
Leu	Asn	Val	Pro	Glu	Thr	Met	Thr	Glu	Val	Leu	Asp	Val	Ser	Asp	Glu	835	840	845	
Glu	Gly	Asp	Asp	Thr	Met	Thr	Gly	Asp	Gly	Gly	Glu	Tyr	Leu	Arg	Pro	850	855	860	
Glu	Asp	Leu	Lys	Glu	Leu	Gly	Asp	Asp	Ser	Leu	Pro	Ser	Ser	Gln	Phe	865	870	875	880
Leu	Asp	Gly	Met	Asn	Tyr	Leu	Arg	Tyr	Ser	Leu	Glu	Gly	Gly	Arg	Ser	885	890	895	

Asp Ser Leu Arg Ser Phe Ser Ser Asp Arg Ser His Thr Leu Ser His
 900 905 910
 Ala Ser Tyr Leu Arg Asp Ser Ala Val Met Asp Asp Ser Val Val Ile
 915 920 925
 Pro Ser His Gln Val Ser Thr Leu Ala Lys Glu Ala Glu Arg Asn Ser
 930 935 940
 Tyr Arg Leu Ser Trp Gly Thr Glu Asn Leu Asp Asn Val Ala Leu Ser
 945 950 955 960
 Ser Ser Pro Ile His Ser Gly Phe Leu Val Ser Phe Met Val Asp Ala
 965 970 975
 Arg Gly Gly Ala Met Arg Gly Cys Arg His Asn Gly Leu Arg Ile Ile
 980 985 990
 Ile Pro Pro Arg Lys Cys Thr Ala Pro Thr Arg Val Thr Cys Arg Leu
 995 1000 1005
 Val Lys Arg His Arg Leu Ala Thr Met Pro Pro Met Val Glu Gly Glu
 1010 1015 1020
 Gly Leu Ala Ser Arg Leu Ile Glu Val Gly Pro Ser Gly Ala Gln Phe
 1025 1030 1035 1040
 Leu Gly Lys Leu His Leu Pro Thr Ala Pro Pro Pro Leu Asn Glu Gly
 1045 1050 1055
 Glu Ser Leu Val Ser Arg Ile Leu Gln Leu Gly Pro Pro Gly Thr Lys
 1060 1065 1070
 Phe Leu Gly Pro Val Ile Val Glu Ile Pro His Phe Ala Ala Leu Arg
 1075 1080 1085
 Gly Lys Glu Arg Glu Leu Val Leu Arg Ser Glu Asn Gly Asp Ser
 1090 1095 1100
 Trp Lys Glu His Phe Cys Asp Tyr Thr Glu Asp Glu Leu Asn Glu Ile
 1105 1110 1115 1120
 Leu Asn Gly Met Asp Glu Val Leu Asp Ser Pro Glu Asp Leu Glu Lys
 1125 1130 1135
 Lys Arg Ile Cys Arg Ile Ile Thr Arg Asp Phe Pro Gln Tyr Phe Ala
 1140 1145 1150
 Val Val Ser Arg Ile Lys Gln Asp Ser Asn Leu Ile Gly Pro Glu Gly
 1155 1160 1165
 Gly Val Leu Ser Ser Thr Val Val Pro Gln Val Gln Ala Val Phe Pro
 1170 1175 1180
 Glu Gly Ala Leu Thr Lys Arg Ile Arg Val Gly Leu Gln Ala Gln Pro
 1185 1190 1195 1200
 Met His Ser Glu Leu Val Lys Lys Ile Leu Gly Asn Lys Ala Thr Phe
 1205 1210 1215
 Ser Pro Ile Val Thr Leu Glu Pro Arg Arg Arg Lys Phe His Lys Pro
 1220 1225 1230
 Ile Thr Met Thr Ile Pro Val Pro Lys Ala Ser Ser Asp Val Met Leu
 1235 1240 1245
 Asn Gly Phe Gly Gly Asp Ala Pro Thr Leu Arg Leu Leu Cys Ser Ile
 1250 1255 1260
 Thr Gly Gly Thr Thr Pro Ala Gln Trp Glu Asp Ile Thr Gly Thr Thr
 1265 1270 1275 1280
 Pro Leu Thr Phe Val Asn Glu Cys Val Ser Phe Thr Thr Asn Val Ser
 1285 1290 1295
 Ala Arg Phe Trp Leu Ile Asp Cys Arg Gln Ile Gln Glu Ser Val Thr
 1300 1305 1310
 Phe Ala Ser Gln Val Tyr Arg Glu Ile Ile Cys Val Pro Tyr Met Ala
 1315 1320 1325
 Lys Phe Val Val Phe Ala Lys Ser His Asp Pro Ile Glu Ala Arg Leu
 1330 1335 1340
 Arg Cys Phe Cys Met Thr Asp Asp Lys Val Asp Lys Thr Leu Glu Gln
 1345 1350 1355 1360
 Gln Glu Asn Phe Ala Glu Val Ala Arg Ser Arg Asp Val Glu Val Leu
 1365 1370 1375
 Glu Gly Lys Pro Ile Tyr Val Asp Cys Phe Gly Asn Leu Val Pro Leu
 1380 1385 1390
 Thr Lys Ser Gly Gln His His Ile Phe Ser Phe Phe Ala Phe Lys Glu
 1395 1400 1405

Asn Arg Leu Pro Leu Phe Val Lys Val Arg Asp Thr Thr Gln Glu Pro
 1410 1415 1420
 Cys Gly Arg Leu Ser Phe Met Lys Glu Pro Lys Ser Thr Arg Gly Leu
 1425 1430 1435 1440
 Val His Gln Ala Ile Cys Asn Leu Asn Ile Thr Leu Pro Ile Tyr Thr
 1445 1450 1455
 Lys Glu Ser Glu Ser Asp Gln Glu Gln Glu Glu Ile Asp Met Thr
 1460 1465 1470
 Ser Glu Lys Asn Pro Gln Asp Glu Gln Glu Arg Ile Glu Glu Arg Leu
 1475 1480 1485
 Ala Tyr Ile Ala Asp His Leu Gly Phe Ser Trp Thr Glu Leu Ala Arg
 1490 1495 1500
 Glu Leu Asp Phe Thr Glu Glu Gln Ile His Gln Ile Arg Ile Glu Asn
 1505 1510 1515 1520
 Pro Asn Ser Leu Gln Asp Gln Ser His Ala Leu Leu Lys Tyr Trp Leu
 1525 1530 1535
 Glu Arg Asp Gly Lys His Ala Thr Asp Thr Asn Leu Val Glu Cys Leu
 1540 1545 1550
 Thr Lys Ile Asn Arg Met Asp Ile Val His Leu Met Glu Thr Asn Thr
 1555 1560 1565
 Glu Pro Leu Gln Glu Arg Ile Ser His Ser Tyr Ala Glu Ile Glu Gln
 1570 1575 1580
 Thr Ile Thr Leu Asp His Ser Glu Gly Phe Ser Val Leu Gln Glu Glu
 1585 1590 1595 1600
 Leu Cys Thr Ala Gln His Lys Gln Lys Glu Glu Gln Ala Val Ser Lys
 1605 1610 1615
 Glu Ser Glu Thr Cys Asp His Pro Pro Ile Val Ser Glu Glu Asp Ile
 1620 1625 1630
 Ser Val Gly Tyr Ser Thr Phe Gln Asp Gly Val Pro Lys Thr Glu Gly
 1635 1640 1645
 Asp Ser Ser Ser Thr Ala Leu Phe Pro Gln Thr His Lys Glu Gln Val
 1650 1655 1660
 Gln Gln Asp Phe Ser Gly Lys Met Gln Asp Leu Pro Glu Glu Ser Ser
 1665 1670 1675 1680
 Leu Glu Tyr Gln Gln Glu Tyr Phe Val Thr Thr Pro Gly Thr Glu Thr
 1685 1690 1695
 Ser Glu Thr Gln Lys Ala Met Ile Val Pro Ser Ser Pro Ser Lys Thr
 1700 1705 1710
 Pro Glu Glu Val Ser Thr Pro Ala Glu Glu Glu Lys Leu Tyr Leu Gln
 1715 1720 1725
 Thr Pro Thr Ser Ser Glu Arg Gly Gly Ser Pro Ile Ile Gln Glu Pro
 1730 1735 1740
 Glu Glu Pro Ser Glu His Arg Glu Glu Ser Ser Pro Arg Lys Thr Ser
 1745 1750 1755 1760
 Leu Val Ile Val Glu Ser Ala Asp Asn Gln Pro Glu Thr Cys Glu Arg
 1765 1770 1775
 Leu Asp Glu Asp Ala Ala Phe Glu Lys Gly Asp Asp Met Pro Glu Ile
 1780 1785 1790
 Pro Pro Glu Thr Val Thr Glu Glu Glu Tyr Ile Asp Glu His Gly His
 1795 1800 1805
 Thr Val Val Lys Lys Val Thr Arg Lys Ile Ile Arg Arg Tyr Val Ser
 1810 1815 1820
 Ser Glu Gly Thr Glu Lys Glu Glu Ile Met Val Gln Gly Met Pro Gln
 1825 1830 1835 1840
 Glu Pro Val Asn Ile Glu Glu Gly Asp Gly Tyr Ser Lys Val Ile Lys
 1845 1850 1855
 Arg Val Val Leu Lys Ser Asp Thr Glu Gln Ser Glu Asp Asn Asn Glu
 1860 1865 1870 1872

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<211> 2941

<212> PRT

<213> Homo sapiens

<400> 1823

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Met Gly Cys Ile Met Thr Glu Ala Leu Glu Asn Lys Ser Val His Phe
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Pro Leu Arg Ser Lys Tyr Asn Arg Leu Thr Lys Val Ala Arg Phe Leu
 20      25      30
Gln Glu Asn Pro Ser Cys Leu Leu Cys Asn Ile Leu His His Tyr Leu
 35      40      45
His Gln Ala Asn Tyr Ser Ile Ile Asp Asp Ala Thr Met Ser Asp Gly
 50      55      60
Leu Pro Ala Leu Val Thr Leu Lys Lys Gly Leu Val Ala Leu Ala Arg
 65      70      75      80
Gln Trp Met Lys Phe Ile Val Val Thr Pro Ala Phe Lys Gly Val Ser
 85      90      95
Leu His Arg Pro Ala Gln Pro Leu Lys Pro Gln Ile Ala Met Asp His
100      105      110
Glu His Glu Asp Gly Leu Gly Leu Asp Asn Gly Gly Gly Leu Gln Ser
115      120      125
Asp Thr Ser Ala Asp Gly Ala Glu Phe Glu Phe Asp Ala Ala Thr Val
130      135      140
Ser Glu His Thr Met Leu Leu Glu Gly Thr Ala Asn Arg Pro Pro Pro
145      150      155      160
Gly Ser Ser Gly Pro Val Thr Gly Ala Glu Ile Met Arg Lys Leu Ser
165      170      175
Lys Thr His Thr His Ser Asp Ser Ala Leu Lys Ile Lys Gly Ile His
180      185      190
Pro Tyr His Ser Leu Ser Tyr Thr Ser Gly Asp Thr Ala Thr Asp Ser
195      200      205
Pro Val His Val Gly Arg Ala Gly Met Pro Val Lys Asp Ser Pro Arg
210      215      220
Lys Glu Ser Leu Leu Ser Tyr Leu Thr Gly Ser Phe Pro Ser Leu His
225      230      235      240
Asn Leu Leu Glu Gly Thr Pro Gln Arg Ser Ser Ala Ala Val Lys Ser
245      250      255
Ser Ser Leu Thr Arg Thr Gly Asn Thr Val Ala Thr Asp Met Leu Ser
260      265      270
Glu His Pro Leu Leu Ser Glu Pro Ser Ser Val Ser Phe Tyr Asn Trp
275      280      285
Met Ser Asn Ala Val Gly Asn Arg Gly Ser Val Leu Gln Glu Ser Pro
290      295      300
Val Thr Lys Ser Gly His Asn Ser Leu Pro Thr Gly Val Ala Pro Asn
305      310      315      320
Leu Pro Thr Ile Pro Ser Ala Ser Asp Phe Asn Thr Val Leu Ser Ser
325      330      335
Asp Gln Asn Thr Leu Asp Gly Thr His Ser Gln His Ser Thr Ser Gln
340      345      350
Asp Asp Val Ala Gly Val Glu Glu Ala Asn Gln Gly Phe Pro Ala Val
355      360      365
Gln Leu Ala Asp Ala Gln Val Val Phe Lys Pro Leu Leu Ser His Thr
370      375      380
Gly Ile Gln Ser Gln Asp Thr Met Pro Phe Cys Tyr Arg Met Tyr Phe
385      390      395      400
Gly Glu His Leu Ser Phe Ser Gly Thr Leu Asp Cys Leu Arg Ala Asp
405      410      415
Ile Val Asp Ser Asp Thr Ala Lys Glu Arg Lys Gly Lys Arg Ala Arg
420      425      430
Arg Gln Gly His Val Asn Leu Pro Pro Leu Glu Phe Lys Pro Ala Leu
435      440      445
Met Leu Gly Thr Phe Ser Ile Ser Ala Val Val Met Glu Lys Ser Val
450      455      460

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Cys Thr Pro Gln Asn Ser Thr Ser Ala Leu Ser Phe His Asp Leu Ser
 465 470 475 480
 Lys Arg Tyr Tyr Asn Thr Phe His Cys Asn Phe Thr Ile Ser Cys Gln
 485 490 495
 Ser Ile Ser Gln His Val Asp Met Ala Leu Val Arg Leu Ile His Gln
 500 505 510
 Phe Ser Thr Met Ile Asp Asp Ile Lys Ala Thr Gln Thr Asp Ile Lys
 515 520 525
 Leu Ser Arg Tyr Thr Ala Gly Ser Ala Ser Pro Thr Pro Thr Phe Lys
 530 535 540
 Thr Arg Lys His Arg Asp Phe Arg Ser Ser Asp Phe Ser Arg Ser Ser
 545 550 555 560
 Arg Gly Ser Leu Asn Gly Gly Asn Arg Val Asn Asn Ala Lys Asn Lys
 565 570 575
 Arg Thr Asn Asn Glu Asn Asn Lys Lys Glu Ser Arg Asn Lys Asn Ser
 580 585 590
 Leu Gly Arg Ser Glu Arg Arg Thr Ser Lys Val Ser Arg Lys Gly Ser
 595 600 605
 Lys Asp Val Val Asp His Met Thr Ile His Met Asp Asp Ser Asp Ser
 610 615 620
 Ile Thr Val Ser Glu Gln Ser Glu Pro Ser Ala Glu Cys Trp Gln Asn
 625 630 635 640
 Met Tyr Lys Leu Leu Asn Phe Tyr Ser Leu Ile Ser Asp Pro Thr Gly
 645 650 655
 Ile Leu Glu Lys Ser Ser Glu Thr Phe Gly Pro Ala Gly Val Arg Ser
 660 665 670
 Pro Thr Glu Pro Thr Cys Lys Val Val Phe Glu Asn Glu Gln Asp Asn
 675 680 685
 Ser Ser Leu Thr Lys Thr Gln Arg Lys Arg Ser Leu Val Thr Ser Glu
 690 695 700
 Pro Gln His Val Thr Leu Ile Val Phe Gly Ile Gly Met Val Asn Arg
 705 710 715 720
 Thr His Leu Glu Ala Asp Ile Gly Gly Leu Thr Met Glu Ser Glu Leu
 725 730 735
 Lys Arg Ile His Gly Ser Phe Thr Leu Lys Glu Lys Met Lys Asp Val
 740 745 750
 Leu His Gln Lys Met Thr Glu Thr Cys Ala Thr Ala His Ile Gly Gly
 755 760 765
 Val Asn Ile Val Leu Leu Glu Gly Ile Thr Pro Asn Ile Gln Leu Glu
 770 775 780
 Asp Phe Pro Thr Ser Pro Thr Ser Thr Ala Lys Gln Glu Phe Leu Thr
 785 790 795 800
 Val Val Lys Cys Ser Ile Ala Lys Ser Gln Ala Leu Tyr Ser Ala Gln
 805 810 815
 Arg Gly Leu Lys Thr Asn Asn Ala Ala Val Phe Lys Val Gly Ala Ile
 820 825 830
 Ser Ile Asn Ile Pro Gln His Pro Ala Thr Leu His Ser Met Met Val
 835 840 845
 Arg Ser Ser His Gln Leu Ser Lys Gln Ile Ser Asp Leu Ile Arg Gln
 850 855 860
 Pro Ser Thr Ala Pro Gln Pro Val Lys Glu Asp Ile Ala Thr Pro Leu
 865 870 875 880
 Pro Ser Glu Lys Thr Pro Thr Ser Val Asn Gln Thr Pro Val Glu Thr
 885 890 895
 Asn Glu Phe Pro Gln Leu Pro Glu Gly Leu Glu Lys Lys Pro Ile Val
 900 905 910
 Leu Lys Phe Ser Ala Met Leu Asp Gly Ile Ala Ile Gly Ala Ala Leu
 915 920 925
 Leu Pro Ser Leu Lys Ala Glu Tyr Lys Met Gly Arg Met Arg Ser His
 930 935 940
 Gly Met Thr Gly Ala Gln Thr Arg Phe Thr Phe Glu Leu Pro Asn His
 945 950 955 960
 Arg Leu Arg Phe Thr Ser Lys Val Ser Ala Thr Asp Met Ser Thr Ile
 965 970 975

Pro Pro Ser Ala Ser Leu Asn Leu Pro Pro Val Thr Met Ser Gly Lys
 980 985 990
 Tyr Ile Met Glu Glu His Asp Ser Tyr Ser Asp Gln Val Trp Ser Ile
 995 1000 1005
 Asp Glu Leu Pro Ser Lys Gln Gly Tyr Tyr Leu Gln Gly Asn Tyr Leu
 1010 1015 1020
 Arg Cys Val Ala Glu Val Gly Ser Phe Glu His Asn Leu Thr Thr Asp
 1025 1030 1035 1040
 Leu Leu Asn His Leu Val Phe Val Gln Lys Val Phe Met Lys Glu Val
 1045 1050 1055
 Asn Glu Val Ile Gln Lys Val Ser Gly Gly Glu Gln Pro Ile Pro Leu
 1060 1065 1070
 Trp Asn Glu His Asp Gly Thr Ala Asp Gly Asp Lys Pro Lys Ile Leu
 1075 1080 1085
 Leu Tyr Ser Leu Asn Leu Gln Phe Lys Gly Ile Gln Val Thr Ala Thr
 1090 1095 1100
 Thr Pro Ser Met Arg Ala Val Arg Phe Glu Thr Gly Leu Ile Glu Leu
 1105 1110 1115 1120
 Glu Leu Ser Asn Arg Leu Gln Thr Lys Ala Ser Pro Gly Ser Ser Ser
 1125 1130 1135
 Tyr Leu Lys Leu Phe Gly Lys Cys Gln Val Asp Leu Asn Leu Ala Leu
 1140 1145 1150
 Gly Gln Ile Val Lys His Gln Val Tyr Glu Glu Ala Gly Ser Asp Phe
 1155 1160 1165
 His Gln Val Ala Tyr Phe Lys Thr Arg Ile Gly Leu Arg Asn Ala Leu
 1170 1175 1180
 Arg Glu Glu Ile Ser Gly Ser Ser Asp Arg Glu Ala Val Leu Ile Thr
 1185 1190 1195 1200
 Leu Asn Arg Pro Ile Val Tyr Ala Gln Pro Val Ala Phe Asp Arg Ala
 1205 1210 1215
 Val Leu Phe Trp Leu Asn Tyr Lys Ala Ala Tyr Asp Asn Trp Asn Glu
 1220 1225 1230
 Gln Arg Met Ala Leu His Lys Asp Ile His Met Ala Thr Lys Glu Val
 1235 1240 1245
 Val Asp Met Leu Pro Gly Ile Gln Gln Thr Ser Ala Gln Ala Phe Gly
 1250 1255 1260
 Thr Leu Phe Leu Gln Leu Thr Val Asn Asp Leu Gly Ile Cys Leu Pro
 1265 1270 1275 1280
 Ile Thr Asn Thr Ala Gln Ser Asn His Thr Gly Asp Leu Asp Thr Gly
 1285 1290 1295
 Ser Ala Leu Val Leu Thr Ile Glu Ser Thr Leu Ile Thr Ala Cys Ser
 1300 1305 1310
 Ser Glu Ser Leu Val Ser Lys Gly His Phe Lys Asn Phe Cys Ile Arg
 1315 1320 1325
 Phe Ala Asp Gly Phe Glu Thr Ser Trp Asp Asp Trp Lys Pro Glu Ile
 1330 1335 1340
 His Gly Asp Leu Val Met Asn Ala Cys Val Val Pro Asp Gly Thr Tyr
 1345 1350 1355 1360
 Glu Val Cys Ser Arg Thr Thr Gly Gln Ala Ala Ala Glu Ser Ser Ser
 1365 1370 1375
 Ala Gly Thr Trp Thr Leu Asn Val Leu Trp Lys Met Cys Gly Ile Asp
 1380 1385 1390
 Val His Met Asp Pro Asn Ile Gly Lys Arg Leu Asn Ala Leu Gly Asn
 1395 1400 1405
 Thr Leu Thr Thr Leu Thr Gly Glu Glu Asp Ile Asp Asp Ile Ala Asp
 1410 1415 1420
 Leu Asn Ser Val Asn Ile Ala Asp Leu Ser Asp Glu Asp Glu Val Asp
 1425 1430 1435 1440
 Thr Met Ser Pro Thr Ile His Thr Glu Ala Thr Asp Tyr Arg Arg Gln
 1445 1450 1455
 Ala Ala Ser Ala Ser Gln Pro Gly Glu Leu Arg Gly Arg Lys Ile Met
 1460 1465 1470
 Lys Arg Ile Val Asp Ile Arg Glu Leu Asn Glu Gln Ala Lys Val Ile
 1475 1480 1485

Asp Asp Leu Lys Lys Leu Gly Ala Ser Glu Gly Thr Ile Asn Gln Glu
 1490 1495 1500
 Ile Gln Arg Tyr Gln Gln Leu Glu Ser Val Ala Val Asn Asp Ile Arg
 1505 1510 1515 1520
 Arg Asp Val Arg Lys Lys Leu Arg Arg Ser Ser Met Arg Ala Ala Ser
 1525 1530 1535
 Leu Lys Asp Lys Trp Gly Leu Ser Tyr Lys Pro Ser Tyr Ser Arg Ser
 1540 1545 1550
 Lys Ser Ile Ser Ala Ser Gly Arg Pro Pro Leu Lys Arg Met Glu Arg
 1555 1560 1565
 Ala Ser Ser Arg Val Gly Glu Thr Glu Glu Leu Pro Glu Ile Arg Val
 1570 1575 1580
 Asp Ala Ala Ser Pro Gly Pro Arg Val Thr Phe Asn Ile Gln Asp Thr
 1585 1590 1595 1600
 Phe Pro Glu Glu Thr Glu Leu Asp Leu Leu Ser Val Thr Ile Glu Gly
 1605 1610 1615
 Pro Ser His Tyr Ser Ser Asn Ser Glu Gly Ser Cys Ser Val Phe Ser
 1620 1625 1630
 Ser Pro Lys Thr Pro Gly Gly Phe Ser Pro Gly Ile Pro Phe Gln Thr
 1635 1640 1645
 Glu Glu Gly Arg Arg Asp Asp Ser Leu Ser Ser Thr Ser Glu Asp Ser
 1650 1655 1660
 Glu Lys Asp Glu Lys Asp Glu Asp His Glu Arg Glu Arg Phe Tyr Ile
 1665 1670 1675 1680
 Tyr Arg Lys Pro Ser His Thr Ser Arg Lys Lys Ala Thr Gly Phe Ala
 1685 1690 1695
 Ala Val His Gln Leu Phe Thr Glu Arg Trp Pro Thr Thr Pro Val Asn
 1700 1705 1710
 Arg Ser Leu Ser Gly Thr Ala Thr Glu Arg Asn Ile Asp Phe Glu Leu
 1715 1720 1725
 Asp Ile Arg Val Glu Ile Asp Ser Gly Lys Cys Val Leu His Pro Thr
 1730 1735 1740
 Thr Leu Leu Gln Glu His Asp Asp Ile Ser Leu Arg Arg Ser Tyr Asp
 1745 1750 1755 1760
 Arg Ser Ser Arg Ser Leu Asp Gln Asp Ser Pro Ser Lys Lys Lys Lys
 1765 1770 1775
 Phe Gln Thr Asn Tyr Ala Ser Thr Thr His Leu Met Thr Gly Lys Lys
 1780 1785 1790
 Val Pro Ser Ser Leu Gln Thr Lys Pro Ser Asp Leu Glu Thr Thr Val
 1795 1800 1805
 Phe Tyr Ile Pro Gly Val Asp Val Lys Leu His Tyr Asn Ser Lys Thr
 1810 1815 1820
 Leu Lys Thr Glu Ser Pro Asn Ala Ser Arg Gly Ser Ser Leu Pro Arg
 1825 1830 1835 1840
 Thr Leu Ser Lys Glu Ser Lys Leu Tyr Gly Met Lys Asp Ser Ala Thr
 1845 1850 1855
 Ser Pro Pro Ser Pro Pro Leu Pro Ser Thr Val Gln Ser Lys Thr Asn
 1860 1865 1870
 Thr Leu Leu Pro Pro Gln Pro Pro Pro Ile Pro Ala Ala Lys Gly Lys
 1875 1880 1885
 Gly Ser Gly Gly Val Lys Thr Ala Lys Leu Tyr Ala Trp Val Ala Leu
 1890 1895 1900
 Gln Ser Leu Pro Glu Glu Met Val Ile Ser Pro Cys Leu Leu Asp Phe
 1905 1910 1915 1920
 Leu Glu Lys Ala Leu Glu Thr Ile Pro Ile Thr Pro Val Glu Arg Asn
 1925 1930 1935
 Tyr Thr Ala Val Ser Ser Gln Asp Glu Asp Met Gly His Phe Glu Ile
 1940 1945 1950
 Pro Asp Pro Met Glu Glu Ser Thr Thr Ser Leu Val Ser Ser Ser Thr
 1955 1960 1965
 Ser Ala Tyr Ser Ser Phe Pro Val Asp Val Val Val Tyr Val Arg Val
 1970 1975 1980
 Gln Pro Ser Gln Ile Lys Phe Ser Cys Leu Pro Val Ser Arg Val Glu
 1985 1990 1995 2000

Cys Met Leu Lys Leu Pro Ser Leu Asp Leu Val Phe Ser Ser Asn Arg
 2005 2010 2015
 Gly Glu Leu Glu Thr Leu Gly Thr Thr Tyr Pro Ala Glu Thr Leu Ser
 2020 2025 2030
 Pro Gly Gly Asn Ala Thr Gln Ser Gly Thr Lys Thr Ser Ala Ser Lys
 2035 2040 2045
 Thr Gly Ile Pro Gly Ser Ser Gly Leu Gly Ser Pro Leu Gly Arg Ser
 2050 2055 2060
 Arg His Ser Ser Ser Gln Ser Asp Leu Thr Ser Ser Ser Ser Ser
 2065 2070 2075 2080
 Ser Gly Leu Ser Phe Thr Ala Cys Met Ser Asp Phe Ser Leu Tyr Val
 2085 2090 2095
 Phe His Pro Tyr Gly Ala Gly Lys Gln Lys Thr Ala Val Ser Gly Leu
 2100 2105 2110
 Thr Pro Gly Ser Gly Gly Leu Gly Asn Val Asp Glu Glu Pro Thr Ser
 2115 2120 2125
 Val Thr Gly Arg Lys Asp Ser Leu Ser Ile Asn Leu Glu Phe Val Lys
 2130 2135 2140
 Val Ser Leu Ser Arg Ile Arg Arg Ser Gly Gly Ala Ser Phe Phe Glu
 2145 2150 2155 2160
 Ser Gln Ser Val Ser Lys Ser Ala Ser Lys Met Asp Thr Thr Leu Ile
 2165 2170 2175
 Asn Ile Ser Ala Val Cys Asp Ile Gly Ser Ala Ser Phe Lys Tyr Asp
 2180 2185 2190
 Met Arg Arg Leu Ser Glu Ile Leu Ala Phe Pro Arg Ala Trp Tyr Arg
 2195 2200 2205
 Arg Ser Ile Ala Arg Arg Leu Phe Leu Gly Asp Gln Thr Ile Asn Leu
 2210 2215 2220
 Pro Thr Ser Gly Pro Gly Thr Pro Asp Ser Ile Glu Gly Val Ser Gln
 2225 2230 2235 2240
 His Leu Ser Pro Glu Ser Ser Arg Lys Ala Tyr Cys Lys Thr Trp Glu
 2245 2250 2255
 Gln Pro Ser Gln Ser Ala Ser Phe Thr His Met Pro Gln Ser Pro Asn
 2260 2265 2270
 Val Phe Asn Glu His Met Thr Asn Ser Thr Met Ser Pro Gly Thr Val
 2275 2280 2285
 Gly Gln Ser Leu Lys Ser Pro Ala Ser Ile Arg Ser Arg Ser Val Ser
 2290 2295 2300
 Asp Ser Ser Val Pro Arg Arg Asp Ser Leu Ser Lys Thr Ser Thr Pro
 2305 2310 2315 2320
 Phe Asn Lys Ser Asn Lys Ala Ala Ser Gln Gln Gly Thr Pro Trp Glu
 2325 2330 2335
 Thr Leu Val Val Phe Ala Ile Asn Leu Lys Gln Leu Asn Val Gln Met
 2340 2345 2350
 Asn Met Ser Asn Val Met Gly Asn Thr Thr Trp Thr Thr Ser Gly Leu
 2355 2360 2365
 Lys Ser Gln Gly Arg Leu Ser Val Gly Ser Asn Arg Asp Arg Glu Ile
 2370 2375 2380
 Ser Met Ser Val Gly Leu Gly Arg Ser Gln Leu Asp Ser Lys Gly Gly
 2385 2390 2395 2400
 Val Val Gly Gly Thr Ile Asp Val Asn Ala Leu Glu Met Val Ala His
 2405 2410 2415
 Ile Ser Glu His Pro Asn Gln Gln Pro Ser His Lys Ile Gln Ile Thr
 2420 2425 2430
 Met Gly Ser Thr Glu Ala Arg Val Asp Tyr Met Gly Ser Ser Ile Leu
 2435 2440 2445
 Met Gly Ile Phe Ser Asn Ala Asp Leu Lys Leu Gln Asp Glu Trp Lys
 2450 2455 2460
 Val Asn Leu Tyr Asn Thr Leu Asp Ser Ser Ile Thr Asp Lys Ser Glu
 2465 2470 2475 2480
 Ile Phe Val His Gly Asp Leu Lys Trp Asp Ile Phe Gln Val Met Ile
 2485 2490 2495
 Ser Arg Ser Thr Thr Pro Asp Leu Ile Lys Ile Gly Met Lys Leu Gln
 2500 2505 2510

Glu Phe Phe Thr Gln Gln Phe Asp Thr Ser Lys Arg Ala Leu Ser Thr
 2515 2520 2525
 Trp Gly Pro Val Pro Tyr Leu Pro Pro Lys Thr Met Thr Ser Asn Leu
 2530 2535 2540
 Glu Lys Ser Ser Gln Glu Gln Leu Leu Asp Ala Ala His His Arg His
 2545 2550 2555 2560
 Trp Pro Gly Val Leu Lys Val Val Ser Gly Cys His Ile Ser Leu Phe
 2565 2570 2575
 Gln Ile Pro Leu Pro Glu Asp Gly Met Gln Phe Gly Gly Ser Met Ser
 2580 2585 2590
 Leu His Gly Asn His Met Thr Leu Ala Cys Phe His Gly Pro Asn Phe
 2595 2600 2605
 Arg Ser Lys Ser Trp Ala Leu Phe His Leu Glu Glu Pro Asn Ile Ala
 2610 2615 2620
 Phe Trp Thr Glu Ala Gln Lys Ile Trp Glu Asp Gly Ser Ser Asp His
 2625 2630 2635 2640
 Ser Thr Tyr Ile Val Gln Thr Leu Asp Phe His Leu Gly His Asn Thr
 2645 2650 2655
 Met Val Thr Lys Pro Cys Gly Ala Leu Glu Ser Pro Met Ala Thr Ile
 2660 2665 2670
 Thr Lys Ile Thr Arg Arg Arg His Glu Asn Pro Pro His Gly Val Ala
 2675 2680 2685
 Ser Val Lys Glu Trp Phe Asn Tyr Val Thr Ala Thr Arg Asn Glu Glu
 2690 2695 2700
 Leu Asn Leu Leu Arg Asn Val Asp Ala Asn Asn Thr Glu Asn Ser Thr
 2705 2710 2715 2720
 Thr Val Lys Asn Ser Ser Leu Leu Ser Gly Phe Arg Gly Gly Ser Ser
 2725 2730 2735
 Tyr Asn His Glu Thr Glu Thr Ile Phe Ala Leu Pro Arg Met Gln Leu
 2740 2745 2750
 Asp Phe Lys Ser Ile His Val Gln Glu Pro Gln Glu Pro Ser Leu Gln
 2755 2760 2765
 Asp Ala Ser Leu Lys Pro Lys Val Glu Cys Ser Val Val Thr Glu Phe
 2770 2775 2780
 Thr Asp His Ile Cys Val Thr Met Asp Ala Glu Leu Ile Met Phe Leu
 2785 2790 2795 2800
 His Asp Leu Val Ser Ala Tyr Leu Lys Glu Lys Glu Lys Ala Ile Phe
 2805 2810 2815
 Pro Pro Arg Ile Leu Ser Thr Arg Pro Gly Gln Lys Ser Pro Ile Ile
 2820 2825 2830
 Ile His Asp Asp Asn Ser Ser Asp Lys Asp Arg Glu Asp Ser Ile Thr
 2835 2840 2845
 Tyr Thr Thr Val Asp Trp Arg Asp Phe Met Cys Asn Thr Trp His Leu
 2850 2855 2860
 Glu Pro Thr Leu Arg Leu Ile Ser Trp Thr Gly Arg Lys Ile Asp Pro
 2865 2870 2875 2880
 Val Gly Val Asp Tyr Ile Leu Gln Lys Leu Gly Phe His His Ala Arg
 2885 2890 2895
 Thr Thr Ile Pro Lys Trp Leu Gln Arg Gly Val Met Asp Pro Leu Asp
 2900 2905 2910
 Lys Val Leu Ser Val Leu Ile Lys Lys Leu Gly Thr Ala Leu Gln Asp
 2915 2920 2925
 Glu Lys Glu Lys Lys Gly Lys Asp Lys Glu Glu His *
 2930 2935 2940

<210> 1824

<211> 194

<212> PRT

<213> Homo sapiens

<400> 1824

Met Glu Gly Cys Val Ser Asn Leu Met Val Cys Asn Leu Ala Tyr Ser
 1 5 10 15
 Gly Lys Leu Glu Glu Leu Lys Glu Ser Ile Leu Ala Asp Lys Ser Leu
 20 25 30
 Ala Thr Arg Thr Asp Gln Ala Gly Trp Ser Pro Leu His Ile Ala Ala
 35 40 45
 Ser Ala Gly Arg Asp Glu Ile Val Lys Ala Leu Leu Gly Lys Gly Ala
 50 55 60
 Gln Val Asn Ala Val Asn Gln Asn Gly Cys Thr Pro Leu His Tyr Ala
 65 70 75 80
 Ala Ser Lys Asn Arg His Glu Ile Ala Val Met Leu Leu Glu Gly Gly
 85 90 95
 Ala Asn Pro Asp Ala Lys Asp His Tyr Glu Ala Thr Ala Met His Arg
 100 105 110
 Ala Ala Ala Lys Gly Asn Leu Lys Met Ile His Ile Leu Leu Tyr Tyr
 115 120 125
 Lys Ala Ser Thr Asn Ile Gln Asp Thr Glu Gly Asn Thr Pro Leu His
 130 135 140
 Leu Ala Cys Asp Glu Glu Arg Val Glu Glu Ala Lys Leu Leu Val Ser
 145 150 155 160
 Gln Gly Ala Ser Ile Tyr Ile Glu Asn Lys Glu Glu Lys Thr Pro Leu
 165 170 175
 Gln Val Ala Lys Gly Gly Leu Gly Leu Ile Leu Lys Arg Met Val Glu
 180 185 190
 Gly *
 193

<210> 1825
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 1825
 Met Pro Asp Lys Thr Ala Thr Pro Glu Arg Pro Pro Ala Pro Glu Asn
 1 5 10 15
 Ala Pro Ser Ser Lys Lys Ile Pro Ala Pro Asp Lys Val Pro Ser Pro
 20 25 30
 Glu Lys Thr Leu Thr Leu Gly Asp Lys Ala Ser Val Pro Gly Asn Ser
 35 40 45
 Thr Ser Gly Lys Ile Pro Ala Pro Asp Lys Val Pro Thr Pro Glu Lys
 50 55 60
 Met Val Thr Pro Glu Asp Lys Ala Ser Ile Pro Glu Asn Ser Ile Ile
 65 70 75 80
 Pro Glu Glu Thr Leu Thr Val Asp Lys Pro Ser Thr Pro Glu Arg Val
 85 90 95
 Phe Ser Val Glu Glu Ser Pro Ala Leu Glu Ala Pro Pro Met Asp Lys
 100 105 110
 Val Pro Asn Pro Lys Met Ala Pro Leu Gly Asp Glu Ala Pro Thr Leu
 115 120 125
 Glu Lys Val Leu Thr Pro Glu Leu Ser Glu Glu Glu Val Ser Thr Arg
 130 135 140
 Asp Asp Ile Gln Phe His His Phe Ser Ser Glu Glu Ala Leu Gln Lys
 145 150 155 160
 Val Lys Tyr Phe Val Ala Lys Glu Asp Pro Ser Ser Gln Glu Glu Ala
 165 170 175
 His Thr Pro Glu Ala Pro Pro Pro Gln Ala Thr Asn Ser Asn Asn Arg
 180 185 190
 Glu Ala Gly Ala Leu Pro Ala Cys Gly Pro Arg Ala Lys Pro Trp Thr
 195 200 205
 Gly Ser Phe Thr Tyr Ser Ala *
 210 215

<210> 1826
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 1826
 Met Gly Ala Tyr Lys Tyr Ile Gln Glu Leu Trp Arg Lys Lys Gln Ser
 1 5 10 15
 Asp Val Met Arg Phe Leu Leu Arg Val Arg Cys Trp Gln Tyr Arg Gln
 20 25 30
 Leu Ser Ala Leu His Arg Ala Pro Arg Pro Thr Arg Pro Asp Lys Ala
 35 40 45
 Arg Arg Leu Gly Tyr Lys Ala Lys Gln Gly Tyr Val Ile Tyr Arg Ile
 50 55 60
 Arg Val Arg Arg Gly Gly Arg Lys Arg Pro Val Pro Lys Gly Ala Thr
 65 70 75 80
 Tyr Gly Lys Pro Val His His Gly Val Asn Gln Leu Lys Phe Ala Arg
 85 90 95
 Ser Leu Gln Ser Val Ala Glu Glu Arg Ala Gly Arg His Cys Gly Ala
 100 105 110
 Leu Arg Val Leu Asn Ser Tyr Trp Val Gly Glu Asp Ser Thr Tyr Lys
 115 120 125
 Phe Phe Glu Val Ile Leu Ile Asp Pro Phe His Lys Ala Ile Arg Arg
 130 135 140
 Asn Pro Asp Thr Gln Trp Ile Thr Lys Pro Val His Lys His Arg Glu
 145 150 155 160
 Met Arg Gly Leu Thr Ser Ala Gly Arg Lys Ser His Gly Leu Gly Lys
 165 170 175
 Asp Arg Met Phe His His Ala Ile Gly Gly Ser Cys Arg Ala Ala *
 180 185 190 191

<210> 1827
 <211> 588
 <212> PRT
 <213> Homo sapiens

<400> 1827
 Met Asp Ser Arg Val Ser Gly Thr Thr Ser Asn Gly Glu Thr Lys Pro
 1 5 10 15
 Val Tyr Pro Val Met Glu Lys Lys Glu Glu Asp Gly Thr Leu Glu Arg
 20 25 30
 Gly His Trp Asn Asn Lys Met Glu Phe Val Leu Ser Val Ala Gly Glu
 35 40 45
 Ile Ile Gly Leu Gly Asn Val Trp Arg Phe Pro Tyr Leu Cys Tyr Lys
 50 55 60
 Asn Gly Gly Gly Ala Phe Phe Ile Pro Tyr Leu Val Phe Leu Phe Thr
 65 70 75 80
 Cys Gly Ile Pro Val Phe Leu Leu Glu Thr Ala Leu Gly Gln Tyr Thr
 85 90 95
 Ser Gln Gly Gly Val Thr Ala Trp Arg Lys Ile Cys Pro Ile Phe Glu
 100 105 110
 Gly Ile Gly Tyr Ala Ser Gln Met Ile Val Ile Leu Leu Asn Val Tyr
 115 120 125
 Tyr Ile Ile Val Leu Ala Trp Ala Leu Phe Tyr Leu Phe Ser Ser Phe
 130 135 140
 Thr Ile Asp Leu Pro Trp Gly Gly Cys Tyr His Glu Trp Asn Thr Glu
 145 150 155 160

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<210> 1828
<211> 185
<212> PRT
<213> Homo sapiens
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3727

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Met Ala Pro Leu Leu Pro Ile Arg Thr Leu Pro Leu Ile Leu Ile Leu
 1          5          10          15
Leu Ala Leu Leu Ser Pro Gly Ala Ala Asp Phe Asn Ile Ser Ser Leu
          20          25          30
Ser Gly Leu Leu Ser Pro Ala Leu Thr Glu Ser Leu Leu Val Ala Leu
          35          40          45
Pro Pro Cys His Leu Thr Gly Gly Asn Ala Thr Leu Met Val Arg Arg
          50          55          60
Ala Asn Asp Ser Lys Val Val Thr Ser Ser Phe Val Val Pro Pro Cys
          65          70          75          80
Arg Gly Arg Arg Glu Leu Val Ser Val Val Asp Ser Gly Ala Gly Phe
          85          90          95
Thr Val Thr Arg Leu Ser Ala Tyr Gln Val Thr Asn Leu Val Pro Gly
          100          105          110
Thr Lys Phe Tyr Ile Ser Tyr Leu Val Lys Lys Gly Thr Ala Thr Glu
          115          120          125
Ser Ser Arg Glu Ile Pro Met Ser Thr Leu Pro Arg Arg Asn Met Glu
          130          135          140
Ser Ile Gly Leu Gly Met Ala Arg Thr Gly Gly Met Val Val Ile Thr
          145          150          155          160
Val Leu Leu Ser Val Ala Met Phe Leu Leu Val Leu Gly Phe Ile Ile
          165          170          175
Ala Leu Ala Leu Gly Ser Arg Lys *
          180          184

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<210> 1829

<211> 526

<212> PRT

<213> Homo sapiens

<400> 1829

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Met Ala Ala Val Val Leu Ala Ala Thr Arg Leu Leu Arg Gly Ser Gly
 1          5          10          15
Ser Trp Gly Cys Ser Arg Leu Arg Phe Gly Pro Pro Ala Tyr Arg Arg
          20          25          30
Phe Ser Ser Gly Gly Ala Tyr Pro Asn Ile Pro Leu Ser Ser Pro Leu
          35          40          45
Pro Gly Val Pro Lys Pro Val Phe Ala Thr Val Asp Gly Gln Glu Lys
          50          55          60
Phe Glu Thr Lys Val Thr Thr Leu Asp Asn Gly Leu Arg Val Ala Ser
          65          70          75          80
Gln Asn Lys Phe Gly Gln Phe Cys Thr Val Gly Ile Leu Ile Asn Ser
          85          90          95
Gly Ser Arg Tyr Glu Ala Lys Tyr Leu Ser Gly Ile Ala His Phe Leu
          100          105          110
Glu Lys Leu Ala Phe Ser Ser Thr Ala Arg Phe Asp Ser Lys Asp Glu
          115          120          125
Ile Leu Leu Thr Leu Glu Lys His Gly Gly Ile Cys Asp Cys Gln Thr
          130          135          140
Ser Arg Asp Thr Thr Met Tyr Ala Val Ser Ala Asp Ser Lys Gly Leu
          145          150          155          160
Asp Thr Val Val Ala Leu Leu Ala Asp Val Val Leu Gln Pro Arg Leu
          165          170          175
Thr Asp Glu Glu Val Glu Met Thr Arg Met Ala Val Gln Phe Glu Leu
          180          185          190
Glu Asp Leu Asn Leu Arg Pro Asp Pro Glu Pro Leu Leu Thr Glu Met
          195          200          205
Ile His Glu Ala Ala Tyr Arg Glu Asn Thr Val Gly Leu His Arg Phe
          210          215          220
Cys Pro Thr Glu Asn Val Ala Lys Ile Asn Arg Glu Val Leu His Ser
          225          230          235          240

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Tyr Leu Arg Asn Tyr Tyr Thr Pro Asp Arg Met Val Leu Ala Gly Val
 245 250 255
 Gly Val Glu His Glu His Leu Val Asp Cys Ala Arg Lys Tyr Leu Leu
 260 265 270
 Gly Val Gln Pro Ala Trp Gly Ser Ala Glu Ala Val Asp Ile Asp Arg
 275 280 285
 Ser Val Ala Gln Tyr Thr Gly Gly Ile Ala Lys Leu Glu Arg Asp Met
 290 295 300
 Ser Asn Val Ser Leu Gly Pro Thr Pro Ile Pro Glu Leu Thr His Ile
 305 310 315 320
 Met Val Gly Leu Glu Ser Cys Ser Phe Leu Glu Glu Asp Phe Ile Pro
 325 330 335
 Phe Ala Val Leu Asn Met Met Met Gly Gly Gly Gly Ser Phe Ser Ala
 340 345 350
 Gly Gly Pro Gly Lys Gly Met Phe Ser Arg Leu Tyr Leu Asn Val Leu
 355 360 365
 Asn Arg His His Trp Met Tyr Asn Ala Thr Ser Tyr His His Ser Tyr
 370 375 380
 Glu Asp Thr Gly Leu Leu Cys Ile His Ala Ser Ala Asp Pro Arg Gln
 385 390 395 400
 Val Arg Glu Met Val Glu Ile Ile Thr Lys Glu Phe Ile Leu Met Gly
 405 410 415
 Gly Thr Val Asp Thr Val Glu Leu Glu Arg Ala Lys Thr Gln Leu Thr
 420 425 430
 Ser Met Leu Met Met Asn Leu Glu Ser Arg Pro Val Ile Phe Glu Asp
 435 440 445
 Val Gly Arg Gln Val Leu Ala Thr Arg Ser Arg Lys Leu Pro His Glu
 450 455 460
 Leu Cys Thr Leu Ile Arg Asn Val Lys Pro Glu Asp Val Lys Arg Val
 465 470 475 480
 Ala Ser Lys Met Leu Arg Gly Lys Pro Ala Val Ala Ala Leu Gly Asp
 485 490 495
 Leu Thr Asp Leu Pro Thr Tyr Glu His Ile Gln Thr Ala Leu Ser Ser
 500 505 510
 Lys Asp Gly Arg Leu Pro Arg Thr Tyr Arg Leu Phe Arg *
 515 520 525

<210> 1830

<211> 1360

<212> PRT

<213> Homo sapiens

<400> 1830

Met Ala Glu Ala Gly Leu Arg Gly Trp Leu Leu Trp Ala Leu Leu Leu
 1 5 10 15
 Arg Leu Ala Gln Ser Glu Pro Tyr Thr Thr Ile His Gln Pro Gly Tyr
 20 25 30
 Cys Ala Phe Tyr Asp Glu Cys Gly Lys Asn Pro Glu Leu Ser Gly Ser
 35 40 45
 Leu Met Thr Leu Ser Asn Val Ser Cys Leu Ser Asn Thr Pro Ala Arg
 50 55 60
 Lys Ile Thr Gly Asp His Leu Ile Leu Leu Gln Lys Ile Cys Pro Arg
 65 70 75 80
 Leu Tyr Thr Gly Pro Asn Thr Gln Ala Cys Cys Ser Ala Lys Gln Leu
 85 90 95
 Val Ser Leu Glu Ala Ser Leu Ser Ile Thr Lys Ala Leu Leu Thr Arg
 100 105 110
 Cys Pro Ala Cys Ser Asp Asn Phe Val Asn Leu His Cys His Asn Thr
 115 120 125
 Cys Ser Pro Asn Gln Ser Leu Phe Ile Asn Val Thr Arg Val Ala Gln
 130 135 140

Leu Gly Ala Gly Gln	Leu Pro Ala Val Val	Ala Tyr Glu Ala Phe Tyr
145	150	155 160
Gln His Ser Phe Ala	Glu Gln Ser Tyr Asp	Ser Cys Ser Arg Val Arg
165	170	175
Val Pro Ala Ala Ala	Thr Leu Ala Val Gly	Thr Met Cys Gly Val Tyr
180	185	190
Gly Ser Ala Leu Cys	Asn Ala Gln Arg Trp	Leu Asn Phe Gln Gly Asp
195	200	205
Thr Gly Asn Gly Leu	Ala Pro Leu Asp Ile	Thr Phe His Leu Leu Glu
210	215	220
Pro Gly Gln Ala Val	Gly Ser Gly Ile Gln	Pro Leu Asn Glu Gly Val
225	230	235 240
Ala Arg Cys Asn Glu	Ser Gln Gly Asp Asp	Val Ala Thr Cys Ser Cys
245	250	255
Gln Asp Cys Ala Ala	Ser Cys Pro Ala Ile	Ala Arg Pro Gln Ala Leu
260	265	270
Asp Ser Thr Phe Tyr	Leu Gly Gln Met Pro	Gly Ser Leu Val Leu Ile
275	280	285
Ile Ile Leu Cys Ser	Val Phe Ala Val Val	Thr Ile Leu Leu Val Gly
290	295	300
Phe Arg Val Ala Pro	Ala Arg Asp Lys Ser	Lys Met Val Asp Pro Lys
305	310	315 320
Lys Gly Thr Ser Leu	Ser Asp Lys Leu Ser	Phe Ser Thr His Thr Leu
325	330	335
Leu Gly Gln Phe Phe	Gln Gly Trp Gly Thr	Trp Val Ala Ser Trp Pro
340	345	350
Leu Thr Ile Leu Val	Leu Ser Val Ile Pro	Val Val Ala Leu Ala Ala
355	360	365
Gly Leu Val Phe Thr	Glu Leu Thr Thr Asp	Pro Val Glu Leu Trp Ser
370	375	380
Ala Pro Asn Ser Gln	Ala Arg Ser Glu Lys	Ala Phe His Asp Gln His
385	390	395 400
Phe Gly Pro Phe Phe	Arg Thr Asn Gln Val	Ile Leu Thr Ala Pro Asn
405	410	415
Arg Ser Ser Tyr Arg	Tyr Asp Ser Leu Leu	Leu Gly Pro Lys Asn Phe
420	425	430
Ser Gly Ile Leu Asp	Leu Asp Leu Leu Glu	Leu Leu Glu Leu Gln
435	440	445
Glu Arg Leu Arg His	Leu Gln Val Trp Ser	Pro Glu Ala Gln Arg Asn
450	455	460
Ile Ser Leu Gln Asp	Ile Cys Tyr Ala Pro	Leu Asn Pro Asp Asn Thr
465	470	475 480
Ser Leu Tyr Asp Cys	Cys Ile Asn Ser Leu	Leu Gln Tyr Phe Gln Asn
485	490	495
Asn Arg Thr Leu Leu	Leu Thr Ala Asn	Gln Thr Leu Met Gly Gln
500	505	510
Thr Ser Gln Val Asp	Trp Lys Asp His Phe	Leu Tyr Cys Ala Asn Ala
515	520	525
Pro Leu Thr Phe Lys	Asp Gly Thr Ala Leu	Ala Leu Ser Cys Met Ala
530	535	540
Asp Tyr Gly Ala Pro	Val Phe Pro Phe Leu	Ala Ile Gly Gly Tyr Lys
545	550	555 560
Gly Lys Asp Tyr Ser	Glu Ala Glu Ala Leu	Ile Met Thr Phe Ser Leu
565	570	575
Asn Asn Tyr Pro Ala	Gly Asp Pro Arg Leu	Ala Gln Ala Lys Leu Trp
580	585	590
Glu Glu Ala Phe Leu	Glu Glu Met Arg Ala	Phe Gln Arg Arg Met Ala
595	600	605
Gly Met Phe Gln Val	Thr Phe Met Ala Glu	Arg Ser Leu Glu Asp Glu
610	615	620
Ile Asn Arg Thr Thr	Ala Glu Asp Leu Pro	Ile Phe Ala Thr Ser Tyr
625	630	635 640
Ile Val Ile Phe Leu	Tyr Ile Ser Leu Ala	Leu Gly Ser Tyr Ser Ser
645	650	655

Trp Ser Arg Val Met Val Asp Ser Lys Ala Thr Leu Gly Leu Gly Gly
 660 665 670
 Val Ala Val Val Leu Gly Ala Val Met Ala Ala Met Gly Phe Phe Ser
 675 680 685
 Tyr Leu Gly Ile Arg Ser Ser Leu Val Ile Leu Gln Val Val Pro Phe
 690 695 700
 Leu Val Leu Ser Val Gly Ala Asp Asn Ile Phe Ile Phe Val Leu Glu
 705 710 715 720
 Tyr Gln Arg Leu Pro Arg Arg Pro Gly Glu Pro Arg Glu Val His Ile
 725 730 735
 Gly Arg Ala Leu Gly Arg Val Ala Pro Ser Met Leu Leu Cys Ser Leu
 740 745 750
 Ser Glu Ala Ile Cys Phe Phe Leu Gly Ala Leu Thr Pro Met Pro Ala
 755 760 765
 Val Arg Thr Phe Ala Leu Thr Ser Gly Leu Ala Val Ile Leu Asp Phe
 770 775 780
 Leu Leu Gln Met Ser Ala Phe Val Ala Leu Leu Ser Leu Asp Ser Lys
 785 790 795 800
 Arg Gln Glu Ala Ser Arg Leu Asp Val Cys Cys Cys Val Lys Pro Gln
 805 810 815
 Glu Leu Pro Pro Pro Gly Gln Gly Glu Gly Leu Leu Leu Gly Phe Phe
 820 825 830
 Gln Lys Ala Tyr Ala Pro Phe Leu Leu His Trp Ile Thr Arg Gly Val
 835 840 845
 Val Leu Leu Leu Phe Leu Ala Leu Phe Gly Val Ser Leu Tyr Ser Met
 850 855 860
 Cys His Ile Ser Val Gly Leu Asp Gln Glu Leu Ala Leu Pro Lys Asp
 865 870 875 880
 Ser Tyr Leu Leu Asp Tyr Phe Leu Phe Leu Asn Arg Tyr Phe Glu Val
 885 890 895
 Gly Ala Pro Val Tyr Phe Val Thr Thr Leu Gly Tyr Asn Phe Ser Ser
 900 905 910
 Glu Ala Gly Met Asn Ala Ile Cys Ser Ser Ala Gly Cys Asn Asn Phe
 915 920 925
 Ser Phe Thr Gln Lys Ile Gln Tyr Ala Thr Glu Phe Pro Glu Gln Ser
 930 935 940
 Tyr Leu Ala Ile Pro Ala Ser Ser Trp Val Asp Asp Phe Ile Asp Trp
 945 950 955 960
 Leu Thr Pro Ser Ser Cys Cys Arg Leu Tyr Ile Ser Gly Pro Asn Lys
 965 970 975
 Asp Lys Phe Cys Pro Ser Thr Val Asn Ser Leu Asn Cys Leu Lys Asn
 980 985 990
 Cys Met Ser Ile Thr Met Gly Ser Val Arg Pro Ser Val Glu Gln Phe
 995 1000 1005
 His Lys Tyr Leu Pro Trp Phe Leu Asn Asp Arg Pro Asn Ile Lys Cys
 1010 1015 1020
 Pro Lys Gly Gly Leu Ala Ala Tyr Ser Thr Ser Val Asn Leu Thr Ser
 1025 1030 1035 1040
 Asp Gly Gln Val Leu Asp Thr Val Ala Ile Leu Ser Pro Arg Leu Glu
 1045 1050 1055
 Tyr Ser Gly Thr Ile Ser Ala His Cys Asn Leu Tyr Leu Leu Asp Ser
 1060 1065 1070
 Ala Ser Arg Phe Met Ala Tyr His Lys Pro Leu Lys Asn Ser Gln Asp
 1075 1080 1085
 Tyr Thr Glu Ala Leu Arg Ala Ala Arg Glu Leu Ala Ala Asn Ile Thr
 1090 1095 1100
 Ala Asp Leu Arg Lys Val Pro Gly Thr Asp Pro Ala Phe Glu Val Phe
 1105 1110 1115 1120
 Pro Tyr Thr Ile Thr Asn Val Phe Tyr Glu Gln Tyr Leu Thr Ile Leu
 1125 1130 1135
 Pro Glu Gly Leu Phe Met Leu Ser Leu Cys Leu Val Pro Thr Phe Ala
 1140 1145 1150
 Val Ser Cys Leu Leu Leu Gly Leu Asp Leu Arg Ser Gly Leu Leu Asn
 1155 1160 1165

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Leu Leu Ser Ile Val Met Ile Leu Val Asp Thr Val Gly Phe Met Ala
1170 1175 1180
Leu Trp Gly Ile Ser Tyr Asn Ala Val Ser Leu Ile Asn Leu Val Ser
1185 1190 1195 1200
Ala Val Gly Met Ser Val Glu Phe Val Ser His Ile Thr Arg Ser Phe
1205 1210 1215
Ala Ile Ser Thr Lys Pro Thr Trp Leu Glu Arg Ala Lys Glu Ala Thr
1220 1225 1230
Ile Ser Met Gly Ser Ala Val Phe Ala Gly Val Ala Met Thr Asn Leu
1235 1240 1245
Pro Gly Ile Leu Val Leu Gly Leu Ala Lys Ala Gln Leu Ile Gln Ile
1250 1255 1260
Phe Phe Phe Arg Leu Asn Leu Leu Ile Thr Leu Leu Gly Leu Leu His
1265 1270 1275 1280
Gly Leu Val Phe Leu Pro Val Ile Leu Ser Tyr Val Gly Pro Asp Val
1285 1290 1295
Asn Pro Ala Leu Ala Leu Glu Gln Lys Arg Ala Glu Glu Ala Val Ala
1300 1305 1310
Ala Val Met Val Ala Ser Cys Pro Asn His Pro Ser Arg Val Ser Thr
1315 1320 1325
Ala Asp Asn Ile Tyr Val Asn His Ser Phe Glu Gly Ser Ile Lys Gly
1330 1335 1340
Ala Gly Ala Ile Ser Asn Phe Leu Pro Asn Asn Gly Arg Gln Phe *
1345 1350 1355 1359

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<210> 1831
<211> 1333
<212> PRT
<213> Homo sapiens

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<400> 1831
Met Ala Glu Ala Gly Leu Arg Gly Trp Leu Leu Trp Ala Leu Leu Leu
1 5 10 15
Arg Leu Ala Gln Ser Glu Pro Tyr Thr Thr Ile His Gln Pro Gly Tyr
20 25 30
Cys Ala Phe Tyr Asp Glu Cys Gly Lys Asn Pro Glu Leu Ser Gly Ser
35 40 45
Leu Met Thr Leu Ser Asn Val Ser Cys Leu Ser Asn Thr Pro Ala Arg
50 55 60
Lys Ile Thr Gly Asp His Leu Ile Leu Leu Gln Lys Ile Cys Pro Arg
65 70 75 80
Leu Tyr Thr Gly Pro Asn Thr Gln Ala Cys Cys Ser Ala Lys Gln Leu
85 90 95
Val Ser Leu Glu Ala Ser Leu Ser Ile Thr Lys Ala Leu Leu Thr Arg
100 105 110
Cys Pro Ala Cys Ser Asp Asn Phe Val Asn Leu His Cys His Asn Thr
115 120 125
Cys Ser Pro Asn Gln Ser Leu Phe Ile Asn Val Thr Arg Val Ala Gln
130 135 140
Leu Gly Ala Gly Gln Leu Pro Ala Val Val Ala Tyr Glu Ala Phe Tyr
145 150 155 160
Gln His Ser Phe Ala Glu Gln Ser Tyr Asp Ser Cys Ser Arg Val Arg
165 170 175
Val Pro Ala Ala Ala Thr Leu Ala Val Gly Thr Met Cys Gly Val Tyr
180 185 190
Gly Ser Ala Leu Cys Asn Ala Gln Arg Trp Leu Asn Phe Gln Gly Asp
195 200 205
Thr Gly Asn Gly Leu Ala Pro Leu Asp Ile Thr Phe His Leu Leu Glu
210 215 220
Pro Gly Gln Ala Val Gly Ser Gly Ile Gln Pro Leu Asn Glu Gly Val
225 230 235 240

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Ala	Arg	Cys	Asn	Glu	Ser	Gln	Gly	Asp	Asp	Val	Ala	Thr	Cys	Ser	Cys	245	250	255
Gln	Asp	Cys	Ala	Ala	Ser	Cys	Pro	Ala	Ile	Ala	Arg	Pro	Gln	Ala	Leu	260	265	270
Asp	Ser	Thr	Phe	Tyr	Leu	Gly	Gln	Met	Pro	Gly	Ser	Leu	Val	Leu	Ile	275	280	285
Ile	Ile	Leu	Cys	Ser	Val	Phe	Ala	Val	Val	Thr	Ile	Leu	Leu	Val	Gly	290	295	300
Phe	Arg	Val	Ala	Pro	Ala	Arg	Asp	Lys	Ser	Lys	Met	Val	Asp	Pro	Lys	305	310	315
Lys	Gly	Thr	Ser	Leu	Ser	Asp	Lys	Leu	Ser	Phe	Ser	Thr	His	Thr	Leu	325	330	335
Leu	Gly	Gln	Phe	Phe	Gln	Gly	Trp	Gly	Thr	Trp	Val	Ala	Ser	Trp	Pro	340	345	350
Leu	Thr	Ile	Leu	Val	Leu	Ser	Val	Ile	Pro	Val	Val	Ala	Leu	Ala	Ala	355	360	365
Gly	Leu	Val	Phe	Thr	Glu	Leu	Thr	Thr	Asp	Pro	Val	Glu	Leu	Trp	Ser	370	375	380
Ala	Pro	Asn	Ser	Gln	Ala	Arg	Ser	Glu	Lys	Ala	Phe	His	Asp	Gln	His	385	390	395
Phe	Gly	Pro	Phe	Phe	Arg	Thr	Asn	Gln	Val	Ile	Leu	Thr	Ala	Pro	Asn	405	410	415
Arg	Ser	Ser	Tyr	Arg	Tyr	Asp	Ser	Leu	Leu	Leu	Gly	Pro	Lys	Asn	Phe	420	425	430
Ser	Gly	Ile	Leu	Asp	Leu	Asp	Leu	Leu	Glu	Leu	Leu	Glu	Leu	Gln		435	440	445
Glu	Arg	Leu	Arg	His	Leu	Gln	Val	Trp	Ser	Pro	Glu	Ala	Gln	Arg	Asn	450	455	460
Ile	Ser	Leu	Gln	Asp	Ile	Cys	Tyr	Ala	Pro	Leu	Asn	Pro	Asp	Asn	Thr	465	470	475
Ser	Leu	Tyr	Asp	Cys	Cys	Ile	Asn	Ser	Leu	Leu	Gln	Tyr	Phe	Gln	Asn	485	490	495
Asn	Arg	Thr	Leu	Leu	Leu	Leu	Thr	Ala	Asn	Gln	Thr	Leu	Met	Gly	Gln	500	505	510
Thr	Ser	Gln	Val	Asp	Trp	Lys	Asp	His	Phe	Leu	Tyr	Cys	Ala	Asn	Ala	515	520	525
Pro	Leu	Thr	Phe	Lys	Asp	Gly	Thr	Ala	Leu	Ala	Leu	Ser	Cys	Met	Ala	530	535	540
Asp	Tyr	Gly	Ala	Pro	Val	Phe	Pro	Phe	Leu	Ala	Ile	Gly	Gly	Tyr	Lys	545	550	555
Gly	Lys	Asp	Tyr	Ser	Glu	Ala	Glu	Ala	Leu	Ile	Met	Thr	Phe	Ser	Leu	565	570	575
Asn	Asn	Tyr	Pro	Ala	Gly	Asp	Pro	Arg	Leu	Ala	Gln	Ala	Lys	Leu	Trp	580	585	590
Glu	Glu	Ala	Phe	Leu	Glu	Glu	Met	Arg	Ala	Phe	Gln	Arg	Arg	Met	Ala	595	600	605
Gly	Met	Phe	Gln	Val	Thr	Phe	Met	Ala	Glu	Arg	Ser	Leu	Glu	Asp	Glu	610	615	620
Ile	Asn	Arg	Thr	Thr	Ala	Glu	Asp	Leu	Pro	Ile	Phe	Ala	Thr	Ser	Tyr	625	630	635
Ile	Val	Ile	Phe	Leu	Tyr	Ile	Ser	Leu	Ala	Leu	Gly	Ser	Tyr	Ser	Ser	645	650	655
Trp	Ser	Arg	Val	Met	Val	Asp	Ser	Lys	Ala	Thr	Leu	Gly	Leu	Gly	Gly	660	665	670
Val	Ala	Val	Val	Leu	Gly	Ala	Val	Met	Ala	Ala	Met	Gly	Phe	Phe	Ser	675	680	685
Tyr	Leu	Gly	Ile	Arg	Ser	Ser	Leu	Val	Ile	Leu	Gln	Val	Val	Pro	Phe	690	695	700
Leu	Val	Leu	Ser	Val	Gly	Ala	Asp	Asn	Ile	Phe	Ile	Phe	Val	Leu	Glu	705	710	715
Tyr	Gln	Arg	Leu	Pro	Arg	Arg	Pro	Gly	Glu	Pro	Arg	Glu	Val	His	Ile	725	730	735
Gly	Arg	Ala	Leu	Gly	Arg	Val	Ala	Pro	Ser	Met	Leu	Leu	Cys	Ser	Leu	740	745	750

Ser Glu Ala Ile Cys Phe Phe Leu Gly Ala Leu Thr Pro Met Pro Ala
 755 760 765
 Val Arg Thr Phe Ala Leu Thr Ser Gly Leu Ala Val Ile Leu Asp Phe
 770 775 780
 Leu Leu Gln Met Ser Ala Phe Val Ala Leu Leu Ser Leu Asp Ser Lys
 785 790 795 800
 Arg Gln Glu Ala Ser Arg Leu Asp Val Cys Cys Cys Val Lys Pro Gln
 805 810 815
 Glu Leu Pro Pro Gly Gln Gly Glu Gly Leu Leu Leu Gly Phe Phe
 820 825 830
 Gln Lys Ala Tyr Ala Pro Phe Leu Leu His Trp Ile Thr Arg Gly Val
 835 840 845
 Val Leu Leu Leu Phe Leu Ala Leu Phe Gly Val Ser Leu Tyr Ser Met
 850 855 860
 Cys His Ile Ser Val Gly Leu Asp Gln Glu Leu Ala Leu Pro Lys Asp
 865 870 875 880
 Ser Tyr Leu Leu Asp Tyr Phe Leu Phe Leu Asn Arg Tyr Phe Glu Val
 885 890 895
 Gly Ala Pro Val Tyr Phe Val Thr Thr Leu Gly Tyr Asn Phe Ser Ser
 900 905 910
 Glu Ala Gly Met Asn Ala Ile Cys Ser Ser Ala Gly Cys Asn Asn Phe
 915 920 925
 Ser Phe Thr Gln Lys Ile Gln Tyr Ala Thr Glu Phe Pro Glu Gln Ser
 930 935 940
 Tyr Leu Ala Ile Pro Ala Ser Ser Trp Val Asp Phe Ile Asp Trp
 945 950 955 960
 Leu Thr Pro Ser Ser Cys Cys Arg Leu Tyr Ile Ser Gly Pro Asn Lys
 965 970 975
 Asp Lys Phe Cys Pro Ser Thr Val Asn Ser Leu Asn Cys Leu Lys Asn
 980 985 990
 Cys Met Ser Ile Thr Met Gly Ser Val Arg Pro Ser Val Glu Gln Phe
 995 1000 1005
 His Lys Tyr Leu Pro Trp Phe Leu Asn Asp Arg Pro Asn Ile Lys Cys
 1010 1015 1020
 Pro Lys Gly Gly Leu Ala Ala Tyr Ser Thr Ser Val Asn Leu Thr Ser
 1025 1030 1035 1040
 Asp Gly Gln Val Leu Ala Ser Arg Phe Met Ala Tyr His Lys Pro Leu
 1045 1050 1055
 Lys Asn Ser Gln Asp Tyr Thr Glu Ala Leu Arg Ala Ala Arg Glu Leu
 1060 1065 1070
 Ala Ala Asn Ile Thr Ala Asp Leu Arg Lys Val Pro Gly Thr Asp Pro
 1075 1080 1085
 Ala Phe Glu Val Phe Pro Tyr Thr Ile Thr Asn Val Phe Tyr Glu Gln
 1090 1095 1100
 Tyr Leu Thr Ile Leu Pro Glu Gly Leu Phe Met Leu Ser Leu Cys Leu
 1105 1110 1115 1120
 Val Pro Thr Phe Ala Val Ser Cys Leu Leu Leu Gly Leu Asp Leu Arg
 1125 1130 1135
 Ser Gly Leu Leu Asn Leu Leu Ser Ile Val Met Ile Leu Val Asp Thr
 1140 1145 1150
 Val Gly Phe Met Ala Leu Trp Gly Ile Ser Tyr Asn Ala Val Ser Leu
 1155 1160 1165
 Ile Asn Leu Val Ser Ala Val Gly Met Ser Val Glu Phe Val Ser His
 1170 1175 1180
 Ile Thr Arg Ser Phe Ala Ile Ser Thr Lys Pro Thr Trp Leu Glu Arg
 1185 1190 1195 1200
 Ala Lys Glu Ala Thr Ile Ser Met Gly Ser Ala Val Phe Ala Gly Val
 1205 1210 1215
 Ala Met Thr Asn Leu Pro Gly Ile Leu Val Leu Gly Leu Ala Lys Ala
 1220 1225 1230
 Gln Leu Ile Gln Ile Phe Phe Phe Arg Leu Asn Leu Leu Ile Thr Leu
 1235 1240 1245
 Leu Gly Leu Leu His Gly Leu Val Phe Leu Pro Val Ile Leu Ser Tyr
 1250 1255 1260

Val Gly Pro Asp Val Asn Pro Ala Leu Ala Leu Glu Gln Lys Arg Ala
 1265 1270 1275 1280
 Glu Glu Ala Val Ala Ala Val Met Val Ala Ser Cys Pro Asn His Pro
 1285 1290 1295
 Ser Arg Val Ser Thr Ala Asp Asn Ile Tyr Val Asn His Ser Phe Glu
 1300 1305 1310
 Gly Ser Ile Lys Gly Ala Gly Ala Ile Ser Asn Phe Leu Pro Asn Asn
 1315 1320 1325
 Gly Arg Gln Phe *
 1330 1332

<210> 1832
 <211> 226
 <212> PRT
 <213> Homo sapiens

<400> 1832
 Met Gly Phe Gly Asp Leu Lys Ser Pro Ala Gly Leu Gln Val Leu Asn
 1 5 10 15
 Asp Tyr Leu Ala Asp Lys Ser Tyr Ile Glu Gly Tyr Val Pro Ser Gln
 20 25 30
 Ala Asp Val Ala Val Phe Glu Ala Val Ser Ser Pro Pro Pro Ala Asp
 35 40 45
 Leu Cys His Ala Leu Arg Trp Tyr Asn His Ile Lys Ser Tyr Glu Lys
 50 55 60
 Glu Lys Ala Ser Leu Pro Gly Val Lys Lys Ala Leu Gly Lys Tyr Gly
 65 70 75 80
 Pro Ala Asp Val Glu Asp Thr Thr Gly Ser Gly Ala Thr Asp Ser Lys
 85 90 95
 Asp Asp Asp Asp Ile Asp Leu Phe Gly Ser Asp Asp Glu Glu Glu Ser
 100 105 110
 Glu Glu Ala Lys Arg Leu Arg Glu Glu Arg Leu Ala Gln Tyr Glu Ser
 115 120 125
 Lys Lys Ala Lys Lys Pro Ala Leu Val Ala Lys Ser Ser Ile Leu Leu
 130 135 140
 Asp Val Lys Pro Trp Asp Asp Glu Thr Asp Met Ala Lys Leu Glu Glu
 145 150 155 160
 Cys Val Arg Ser Ile Gln Ala Asp Gly Leu Val Trp Gly Ser Ser Lys
 165 170 175
 Leu Val Pro Val Gly Tyr Gly Ile Lys Lys Leu Gln Ile Gln Cys Val
 180 185 190
 Val Glu Asp Asp Lys Val Gly Thr Asp Met Leu Glu Glu Gln Ile Thr
 195 200 205
 Ala Phe Glu Asp Tyr Val Gln Ser Met Asp Val Ala Ala Phe Asn Lys
 210 215 220
 Ile *
 225

<210> 1833
 <211> 653
 <212> PRT
 <213> Homo sapiens

<400> 1833
 Met Ile Asn Met Cys Phe Gln Glu Leu Val Thr Phe Arg Asp Val Ala
 1 5 10 15
 Ile Glu Phe Ser Pro Glu Glu Trp Lys Cys Leu Asp Pro Ala Gln Gln
 20 25 30

Asn	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
	35						40					45			
Leu	Gly	Phe	Val	Ile	Ser	Asn	Pro	Asp	Leu	Val	Thr	Cys	Leu	Glu	Gln
	50					55					60				
Ile	Lys	Glu	Pro	Cys	Asn	Leu	Lys	Ile	His	Glu	Thr	Ala	Ala	Lys	Pro
	65				70					75				80	
Pro	Ala	Ile	Cys	Ser	Pro	Phe	Ser	Gln	Asp	Leu	Ser	Pro	Val	Gln	Gly
			85						90					95	
Ile	Glu	Asp	Ser	Phe	His	Lys	Leu	Ile	Leu	Lys	Arg	Tyr	Glu	Lys	Cys
		100						105					110		
Gly	His	Glu	Asn	Leu	Gln	Leu	Arg	Lys	Gly	Cys	Lys	Arg	Val	Asn	Glu
	115					120						125			
Cys	Lys	Val	Gln	Lys	Gly	Val	Asn	Asn	Gly	Val	Tyr	Gln	Cys	Leu	Ser
	130					135					140				
Thr	Thr	Gln	Ser	Lys	Ile	Phe	Gln	Cys	Asn	Thr	Cys	Val	Lys	Val	Phe
	145				150					155					160
Ser	Lys	Phe	Ser	Asn	Ser	Asn	Lys	His	Lys	Ile	Arg	His	Thr	Gly	Glu
				165					170					175	
Lys	Pro	Phe	Lys	Cys	Thr	Glu	Cys	Gly	Arg	Ser	Phe	Tyr	Met	Ser	His
		180						185					190		
Leu	Thr	Gln	His	Thr	Gly	Ile	His	Ala	Gly	Glu	Lys	Pro	Tyr	Asn	Val
	195					200						205			
Lys	Asn	Val	Ala	Lys	Leu	Tyr	Arg	Val	His	Asn	Pro	Leu	Asn	Glu	His
	210					215					220				
Lys	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Glu	Cys	Gly
	225				230					235				240	
Lys	Ala	Leu	Asp	Val	Leu	Asn	Glu	His	Lys	Lys	Ile	His	Thr	Gly	Glu
			245						250					255	
Lys	Pro	Tyr	Lys	Cys	Glu	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Arg	Ser	Thr
		260						265					270		
Thr	Leu	Asn	Glu	His	Lys	Lys	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys
	275						280						285		
Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Arg	Trp	Ser	Thr	Ser	Leu	Asn	Glu
	290					295					300				
His	Lys	Asn	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Lys	Glu	Cys
	305				310					315				320	
Gly	Lys	Ala	Phe	Arg	Gln	Ser	Arg	Ser	Leu	Asn	Glu	His	Lys	Asn	Ile
			325						330					335	
His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Lys	Cys	Gly	Lys	Ala	Phe
		340						345					350		
Asn	Gln	Ser	Ser	Ser	Leu	Ile	Ile	His	Arg	Ser	Ile	His	Ser	Glu	Gln
		355					360					365			
Lys	Leu	Tyr	Lys	Cys	Glu	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Trp	Ser	Ser
	370					375					380				
Ser	Leu	Asn	Lys	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr
	385				390					395				400	
Cys	Glu	Glu	Cys	Gly	Lys	Ala	Phe	Tyr	Arg	Ser	Ser	His	Leu	Ala	Lys
			405						410					415	
His	Lys	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Glu	Cys
		420						425					430		
Gly	Lys	Ala	Phe	Asn	Gln	Ser	Ser	Thr	Leu	Ile	Leu	His	Lys	Arg	Ile
	435						440					445			
His	Ser	Gly	Gln	Lys	Pro	Tyr	Lys	Cys	Glu	Glu	Cys	Gly	Lys	Ala	Phe
	450						455					460			
Thr	Arg	Ser	Thr	Thr	Leu	Asn	Glu	His	Lys	Lys	Ile	His	Thr	Gly	Glu
	465				470					475				480	
Lys	Pro	Tyr	Lys	Cys	Glu	Glu	Cys	Gly	Lys	Ala	Phe	Ile	Trp	Ser	Ala
			485						490					495	
Ser	Leu	Asn	Glu	His	Lys	Asn	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys
		500						505					510		
Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Asn	Gln	Ser	Ser	Gly	Leu	Ile	Ile
	515						520					525			
His	Arg	Ser	Ile	His	Ser	Glu	Gln	Lys	Leu	Tyr	Lys	Cys	Glu	Glu	Cys
	530					535					540				

Gly Lys Ala Phe Thr Arg Ser Thr Ala Leu Asn Glu His Lys Lys Ile
 545 550 555 560
 His Ser Gly Glu Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Tyr
 565 570 575
 Asn Leu Ser Ser Thr Leu Thr Lys His Lys Arg Ile His Thr Gly Glu
 580 585 590
 Lys Pro Phe Thr Cys Glu Glu Cys Gly Lys Ala Phe Asn Trp Ser Ser
 595 600 605
 Ser Leu Thr Lys His Lys Ile Ile His Thr Gly Glu Lys Ser Tyr Lys
 610 615 620
 Cys Glu Glu Cys Gly Lys Gly Phe Asn Arg Pro Ser Thr Leu Thr Val
 625 630 635 640
 His Lys Arg Phe Ile Leu Ala Arg Asn Ile Val Glu *
 645 650 652

<210> 1834
 <211> 469
 <212> PRT
 <213> Homo sapiens

<400> 1834
 Met Asp Leu Thr Lys Gly Cys Val Thr Phe Glu Asp Ile Ala Ile Tyr
 1 5 10 15
 Phe Ser Gln Asp Glu Trp Gly Leu Leu Asp Glu Ala Gln Arg Leu Leu
 20 25 30
 Tyr Leu Glu Val Met Leu Glu Asn Phe Ala Leu Val Ala Ser Leu Gly
 35 40 45
 Cys Gly His Gly Thr Glu Asp Glu Glu Thr Pro Ser Asp Gln Asn Val
 50 55 60
 Ser Val Gly Val Ser Gln Ser Lys Ala Gly Ser Ser Thr Gln Lys Thr
 65 70 75 80
 Gln Ser Cys Glu Met Cys Val Pro Val Leu Lys Asp Ile Leu His Leu
 85 90 95
 Ala Asp Leu Pro Gly Gln Lys Pro Tyr Leu Val Gly Glu Cys Thr Asn
 100 105 110
 His His Gln His Gln Lys His His Ser Ala Lys Lys Ser Leu Lys Arg
 115 120 125
 Asp Met Asp Arg Ala Ser Tyr Val Lys Cys Cys Leu Phe Cys Met Ser
 130 135 140
 Leu Lys Pro Phe Arg Lys Trp Glu Val Gly Lys Asp Leu Pro Ala Met
 145 150 155 160
 Leu Arg Leu Leu Arg Ser Leu Val Phe Pro Gly Gly Lys Lys Pro Gly
 165 170 175
 Thr Ile Thr Glu Cys Gly Glu Asp Ile Arg Ser Gln Lys Ser His Tyr
 180 185 190
 Lys Ser Gly Glu Cys Gly Lys Ala Ser Arg His Lys His Thr Pro Val
 195 200 205
 Tyr His Pro Arg Val Tyr Thr Gly Lys Lys Leu Tyr Glu Cys Ser Lys
 210 215 220
 Cys Gly Lys Ala Phe Arg Gly Lys Tyr Ser Leu Val Gln His Gln Arg
 225 230 235 240
 Val His Thr Gly Glu Arg Pro Trp Glu Cys Asn Glu Cys Gly Lys Phe
 245 250 255
 Phe Ser Gln Thr Ser His Leu Asn Asp His Arg Arg Ile His Thr Gly
 260 265 270
 Glu Arg Pro Tyr Glu Cys Ser Glu Cys Gly Lys Leu Phe Arg Gln Asn
 275 280 285
 Ser Ser Leu Val Asp His Gln Lys Ile His Thr Gly Ala Arg Pro Tyr
 290 295 300
 Glu Cys Ser Gln Cys Gly Lys Ser Phe Ser Gln Lys Ala Thr Leu Val
 305 310 315 320

Lys His Gln Arg Val His Thr Gly Glu Arg Pro Tyr Lys Cys Gly Glu
 325 330 335
 Cys Gly Asn Ser Phe Ser Gln Ser Ala Ile Leu Asn Gln His Arg Arg
 340 345 350
 Ile His Thr Gly Ala Lys Pro Tyr Glu Cys Gly Gln Cys Gly Lys Ser
 355 360 365
 Phe Ser Gln Lys Ala Thr Leu Ile Lys His Gln Arg Val His Thr Gly
 370 375 380
 Glu Arg Pro Tyr Lys Cys Gly Asp Cys Gly Lys Ser Phe Ser Gln Ser
 385 390 395 400
 Ser Ile Leu Ile Gln His Arg Arg Ile His Thr Gly Ala Arg Pro Tyr
 405 410 415
 Glu Cys Gly Gln Cys Gly Lys Ser Phe Ser Gln Lys Ser Gly Leu Ile
 420 425 430
 Gln His Gln Val Val His Thr Gly Glu Arg Pro Tyr Glu Cys Asn Lys
 435 440 445
 Cys Gly Asn Ser Phe Ser Gln Cys Ser Ser Leu Ile His His Gln Lys
 450 455 460
 Cys His Asn Thr *
 465 468

<210> 1835
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 1835
 Met Lys His Gly Gln Lys Ser Pro Thr Gly Lys Gln Thr Ser Gln His
 1 5 10 15
 Leu Lys Arg Leu Lys Lys Ser Gly Leu Gly His Leu Lys Trp Thr Lys
 20 25 30
 Ala Glu Asp Ile Asp Ile Glu Thr Pro Gly Ser Ile Leu Val Asn Thr
 35 40 45
 Asn Leu Arg Ala Leu Ile Asn Lys His Thr Phe Ala Ser Leu Pro Gln
 50 55 60
 His Phe Gln Gln Tyr Leu Leu Leu Leu Pro Glu Val Asp Arg Gln
 65 70 75 80
 Met Gly Ser Asp Gly Ile Leu Arg Leu Ser Thr Ser Ala Leu Asn Asn
 85 90 95
 Glu Phe Phe Ala Tyr Ala Ala Gln Gly Trp Lys Gln Arg Leu Ala Glu
 100 105 110
 Gly Lys Phe Val Phe Ser Ile Ile Met *
 115 120 121

<210> 1836
 <211> 626
 <212> PRT
 <213> Homo sapiens

<400> 1836
 Met Pro Gly Thr Lys Arg Phe Gln His Val Ile Glu Thr Pro Glu Pro
 1 5 10 15
 Gly Lys Trp Glu Leu Ser Gly Tyr Glu Ala Ala Val Pro Ile Thr Glu
 20 25 30
 Lys Ser Asn Pro Leu Thr Gln Asp Leu Asp Lys Ala Asp Ala Glu Asn
 35 40 45
 Ile Val Arg Leu Leu Gly Gln Cys Asp Ala Glu Ile Phe Gln Glu Glu
 50 55 60

Gly	Gln	Ala	Leu	Ser	Thr	Tyr	Gln	Arg	Leu	Tyr	Ser	Glu	Ser	Ile	Leu
65					70					75					80
Thr	Thr	Met	Val	Gln	Val	Ala	Gly	Lys	Val	Gln	Glu	Val	Leu	Lys	Glu
				85					90					95	
Pro	Asp	Gly	Gly	Leu	Val	Val	Leu	Ser	Gly	Gly	Gly	Thr	Ser	Gly	Arg
		100						105					110		
Met	Ala	Phe	Leu	Met	Ser	Val	Ser	Phe	Asn	Gln	Leu	Met	Lys	Gly	Leu
		115					120					125			
Gly	Gln	Lys	Pro	Leu	Tyr	Thr	Tyr	Leu	Ile	Ala	Gly	Gly	Asp	Arg	Ser
	130					135					140				
Val	Val	Ala	Ser	Arg	Glu	Gly	Thr	Glu	Asp	Ser	Ala	Leu	His	Gly	Ile
145					150					155					160
Glu	Glu	Leu	Lys	Lys	Val	Ala	Ala	Gly	Lys	Lys	Arg	Val	Ile	Val	Ile
			165						170					175	
Gly	Ile	Ser	Val	Gly	Leu	Ser	Ala	Pro	Phe	Val	Ala	Gly	Gln	Met	Asp
			180					185						190	
Cys	Cys	Met	Asn	Asn	Thr	Ala	Val	Phe	Leu	Pro	Val	Leu	Val	Gly	Phe
		195					200						205		
Asn	Pro	Val	Ser	Met	Ala	Arg	Asn	Asp	Pro	Ile	Glu	Asp	Trp	Ser	Ser
		210				215							220		
Thr	Phe	Arg	Gln	Val	Ala	Glu	Arg	Met	Gln	Lys	Met	Gln	Glu	Lys	Gln
225					230					235					240
Lys	Ala	Phe	Val	Leu	Asn	Pro	Ala	Ile	Gly	Pro	Glu	Gly	Leu	Ser	Gly
			245						250					255	
Ser	Ser	Arg	Met	Lys	Gly	Gly	Ser	Ala	Thr	Lys	Ile	Leu	Leu	Glu	Thr
			260				265						270		
Leu	Leu	Leu	Ala	Ala	His	Lys	Thr	Val	Asp	Gln	Gly	Ile	Ala	Ala	Ser
			275				280					285			
Gln	Arg	Cys	Leu	Leu	Glu	Ile	Leu	Arg	Thr	Phe	Glu	Arg	Ala	His	Gln
		290				295					300				
Val	Thr	Tyr	Ser	Gln	Ser	Pro	Lys	Ile	Ala	Thr	Leu	Met	Lys	Ser	Val
305					310					315					320
Ser	Thr	Ser	Leu	Glu	Lys	Lys	Gly	His	Val	Tyr	Leu	Val	Gly	Trp	Gln
			325						330					335	
Thr	Leu	Gly	Ile	Ile	Ala	Ile	Met	Asp	Gly	Val	Glu	Cys	Ile	His	Thr
			340					345					350		
Phe	Gly	Ala	Asp	Phe	Arg	Asp	Val	Arg	Gly	Phe	Leu	Ile	Gly	Asp	His
		355					360					365			
Ser	Asp	Met	Phe	Asn	Gln	Lys	Ala	Glu	Leu	Thr	Asn	Gln	Gly	Pro	Gln
		370				375						380			
Phe	Thr	Phe	Ser	Gln	Glu	Asp	Phe	Leu	Thr	Ser	Ile	Leu	Pro	Ser	Leu
385					390					395					400
Thr	Glu	Ile	Asp	Thr	Val	Val	Phe	Ile	Phe	Thr	Leu	Asp	Asp	Asn	Leu
			405						410					415	
Thr	Glu	Val	Gln	Thr	Ile	Val	Glu	Gln	Val	Lys	Glu	Lys	Thr	Asn	His
			420					425					430		
Ile	Gln	Ala	Leu	Ala	His	Ser	Thr	Val	Gly	Gln	Thr	Leu	Leu	Ile	Pro
			435				440					445			
Leu	Lys	Lys	Leu	Phe	Pro	Ser	Ile	Ile	Ser	Ile	Thr	Trp	Pro	Leu	Leu
		450				455					460				
Phe	Phe	Glu	Tyr	Glu	Gly	Asn	Phe	Ile	Gln	Lys	Phe	Gln	Arg	Glu	Leu
465					470					475					480
Ser	Thr	Lys	Trp	Val	Leu	Asn	Thr	Val	Ser	Thr	Gly	Ala	His	Val	Leu
			485					490					495		
Leu	Gly	Lys	Ile	Leu	Gln	Asn	His	Met	Leu	Asp	Leu	Arg	Ile	Ser	Asn
			500				505						510		
Ser	Lys	Leu	Phe	Trp	Arg	Ala	Leu	Ala	Met	Leu	Gln	Arg	Phe	Ser	Gly
		515				520						525			
Gln	Ser	Lys	Ala	Arg	Cys	Ile	Glu	Ser	Leu	Leu	Arg	Ala	Ile	His	Phe
		530				535					540				
Pro	Gln	Pro	Leu	Ser	Asp	Asp	Ile	Arg	Ala	Ala	Pro	Ile	Ser	Cys	Arg
545					550					555					560
Val	Gln	Val	Ala	His	Glu	Lys	Glu	Gln	Val	Ile	Pro	Ile	Ala	Leu	Leu
				565					570					575	

Ser Leu Leu Phe Arg Cys Ser Ile Thr Glu Ala Gln Ala His Leu Ala
 580 585 590
 Ala Ala Pro Ser Val Cys Glu Ala Val Arg Ser Ala Leu Ala Gly Pro
 595 600 605
 Gly Gln Lys Arg Thr Ala Asp Pro Leu Glu Ile Leu Glu Pro Asp Val
 610 615 620
 Gln *
 625

<210> 1837
 <211> 376
 <212> PRT
 <213> Homo sapiens

<400> 1837
 Met Ala Ser Asp Pro His Ser Leu Glu Glu Phe Cys Ser Asp Pro His
 1 5 10 15
 Ala Val Ala Gly Ala Leu Lys Ser Tyr Leu Arg Glu Leu Pro Glu Pro
 20 25 30
 Leu Met Thr Phe Asp Leu Tyr Asp Asp Trp Met Arg Ala Ala Ser Leu
 35 40 45
 Lys Glu Pro Gly Ala Arg Leu Gln Ala Leu Gln Glu Val Cys Ser Arg
 50 55 60
 Leu Pro Pro Glu Asn Leu Ser Asn Leu Arg Tyr Leu Met Lys Phe Leu
 65 70 75 80
 Ala Arg Leu Ala Glu Glu Gln Glu Val Asn Lys Met Thr Pro Ser Asn
 85 90 95
 Ile Ala Ile Val Leu Gly Pro Asn Leu Leu Trp Pro Pro Glu Lys Glu
 100 105 110
 Gly Asp Gln Ala Gln Leu Asp Ala Ala Ser Val Ser Ser Ile Gln Val
 115 120 125
 Val Gly Val Val Glu Ala Leu Ile Gln Ser Ala Asp Thr Leu Phe Pro
 130 135 140
 Gly Asp Ile Asn Phe Asn Val Ser Gly Leu Phe Ser Ala Val Thr Leu
 145 150 155 160
 Gln Asp Thr Val Ser Asp Arg Leu Ala Ser Glu Glu Leu Pro Ser Thr
 165 170 175
 Ala Val Pro Thr Pro Ala Thr Thr Pro Ala Pro Ala Pro Ala Pro Ala
 180 185 190
 Pro Ala Pro Ala Pro Ala Leu Ala Ser Ala Ala Thr Lys Glu Arg Thr
 195 200 205
 Glu Ser Glu Val Pro Pro Arg Pro Ala Ser Pro Lys Val Thr Arg Ser
 210 215 220
 Pro Pro Glu Thr Ala Ala Pro Val Glu Asp Met Ala Arg Arg Thr Lys
 225 230 235 240
 Arg Pro Ala Pro Ala Arg Pro Thr Met Pro Pro Pro Gln Val Ser Gly
 245 250 255
 Ser Arg Ser Ser Pro Pro Ala Pro Pro Leu Pro Pro Gly Ser Gly Ser
 260 265 270
 Pro Gly Thr Pro Gln Ala Leu Pro Arg Arg Leu Val Gly Ser Ser Leu
 275 280 285
 Arg Ala Pro Thr Val Pro Pro Pro Leu Pro Pro Thr Pro Pro Gln Pro
 290 295 300
 Ala Arg Arg Gln Ser Arg Arg Ser Pro Ala Ser Pro Ser Pro Ala Ser
 305 310 315 320
 Pro Gly Pro Ala Ser Pro Ser Pro Val Ser Leu Ser Asn Pro Ala Gln
 325 330 335
 Val Asp Leu Gly Ala Ala Thr Ala Glu Gly Gly Ala Pro Glu Ala Ile
 340 345 350
 Ser Gly Val Pro Thr Pro Pro Ala Ile Pro Pro Gln Pro Arg Pro Arg
 355 360 365

Ser Leu Ala Ser Glu Thr Asn *
 370 375

<210> 1838
 <211> 320
 <212> PRT
 <213> Homo sapiens

<400> 1838
 Met Thr Ser Ile Pro Phe Pro Gly Asp Arg Leu Leu Gln Val Asp Gly
 1 5 10 15
 Val Ile Leu Cys Gly Leu Thr His Lys Gln Ala Val Gln Cys Leu Lys
 20 25 30
 Gly Pro Gly Gln Val Ala Arg Leu Val Leu Glu Arg Arg Val Pro Arg
 35 40 45
 Ser Thr Gln Gln Cys Pro Ser Ala Asn Asp Ser Met Gly Asp Glu Arg
 50 55 60
 Thr Ala Val Ser Leu Val Thr Ala Leu Pro Gly Arg Pro Ser Ser Cys
 65 70 75 80
 Val Ser Val Thr Asp Gly Pro Lys Phe Glu Val Lys Leu Lys Lys Asn
 85 90 95
 Ala Asn Gly Leu Gly Phe Ser Phe Val Gln Met Glu Lys Glu Ser Cys
 100 105 110
 Ser His Leu Lys Ser Asp Leu Val Arg Ile Lys Arg Leu Phe Pro Gly
 115 120 125
 Gln Pro Ala Glu Glu Asn Gly Ala Ile Ala Ala Gly Asp Ile Ile Leu
 130 135 140
 Ala Val Asn Gly Arg Ser Thr Glu Gly Leu Ile Phe Gln Glu Val Leu
 145 150 155 160
 His Leu Leu Arg Gly Ala Pro Gln Glu Val Thr Leu Leu Leu Cys Arg
 165 170 175
 Pro Pro Pro Gly Ala Leu Pro Glu Met Glu Gln Glu Trp Gln Thr Pro
 180 185 190
 Glu Leu Ser Ala Asp Lys Glu Phe Thr Arg Ala Thr Cys Thr Asp Ser
 195 200 205
 Cys Thr Ser Pro Ile Leu Asp Gln Glu Asp Ser Trp Arg Asp Ser Ala
 210 215 220
 Ser Pro Asp Ala Gly Glu Gly Leu Gly Leu Arg Pro Glu Ser Ser Gln
 225 230 235 240
 Lys Ala Ile Arg Glu Ala Gln Trp Gly Gln Asn Arg Glu Arg Pro Trp
 245 250 255
 Ala Ser Ser Leu Thr His Ser Pro Glu Ser His Pro His Leu Cys Lys
 260 265 270
 Leu His Gln Glu Arg Asp Glu Ser Thr Leu Ala Thr Ser Leu Glu Lys
 275 280 285
 Asp Val Arg Gln Asn Cys Tyr Ser Val Cys Asp Ile Met Arg Leu Gly
 290 295 300
 Arg Tyr Ser Phe Ser Ser Pro Leu Thr Arg Leu Ser Thr Asp Ile Phe
 305 310 315 320

<210> 1839
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 1839

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Met Leu Ser Asn Glu Asp Val Val Arg Leu Val Val Gly His Leu Ala
 1          5          10          15
Glu Ala Asp Trp His Lys Thr Asp Leu Ala Gln Arg Pro Ala Asn Leu
          20          25          30
Gly Leu Met Gln Ser Leu Leu Leu Gln Arg Lys Ala Ser Gly Leu His
          35          40          45
Glu Ala Asp Gln Asn Ala Ala Thr Arg Leu Ile Arg His Ala Ile Gly
          50          55          60
Asn Asn Glu Tyr Gly Glu Met Glu Ala Glu Arg Leu Ala Ala Met Leu
65          70          75          80
Thr Leu Pro Glu Asp Leu Ala Arg Met Tyr Arg Asp Asp Ile Thr Val
          85          90          95
Thr Val Val Tyr Phe Asn Ser Glu Ser Ile Gly Ala Tyr Tyr Lys Gly
          100          105          110
Gly
113

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<210> 1840
<211> 701
<212> PRT
<213> Homo sapiens

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<400> 1840
Met Ala Ser Thr Val Glu Gly Gly Asp Thr Ala Leu Leu Pro Glu Phe
 1          5          10          15
Pro Arg Gly Pro Leu Asp Ala Tyr Arg Ala Arg Ala Ser Phe Ser Trp
          20          25          30
Lys Glu Leu Ala Leu Phe Thr Glu Gly Glu Gly Met Leu Arg Phe Lys
          35          40          45
Lys Thr Ile Phe Ser Ala Leu Glu Asn Asp Pro Leu Phe Ala Arg Ser
          50          55          60
Pro Gly Ala Asp Leu Ser Leu Glu Lys Tyr Arg Glu Leu Asn Phe Leu
65          70          75          80
Arg Cys Lys Arg Ile Phe Glu Tyr Asp Phe Leu Ser Val Glu Asp Met
          85          90          95
Phe Lys Ser Pro Leu Lys Val Pro Ala Leu Ile Gln Cys Leu Gly Met
          100          105          110
Tyr Asp Ser Ser Leu Ala Ala Lys Tyr Leu Leu His Ser Leu Val Phe
          115          120          125
Gly Ser Ala Val Tyr Ser Ser Gly Ser Glu Arg His Leu Thr Tyr Ile
          130          135          140
Gln Lys Ile Phe Arg Met Glu Ile Phe Gly Cys Phe Ala Leu Thr Glu
145          150          155          160
Leu Ser His Gly Ser Asn Thr Lys Ala Ile Arg Thr Thr Ala His Tyr
          165          170          175
Asp Pro Ala Thr Glu Glu Phe Ile Ile His Ser Pro Asp Phe Glu Ala
          180          185          190
Ala Lys Phe Trp Val Gly Asn Met Gly Lys Thr Ala Thr His Ala Val
          195          200          205
Val Phe Ala Lys Leu Cys Val Pro Gly Asp Gln Cys His Gly Leu His
210          215          220
Pro Phe Ile Val Gln Ile Arg Asp Pro Lys Thr Leu Leu Pro Met Pro
225          230          235          240
Gly Val Met Val Gly Asp Ile Gly Lys Lys Leu Gly Gln Asn Gly Leu
          245          250          255
Asp Asn Gly Phe Ala Met Phe His Lys Val Arg Val Pro Arg Gln Ser
          260          265          270
Leu Leu Asn Arg Met Gly Asp Val Thr Pro Glu Gly Thr Tyr Val Ser
          275          280          285
Pro Phe Lys Asp Val Arg Gln Arg Phe Gly Ala Ser Leu Gly Ser Leu
290          295          300

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Ser Ser Gly Arg Val Ser Ile Val Ser Leu Ala Ile Leu Asn Leu Lys
305          310          315          320
Leu Ala Val Ala Ile Ala Leu Arg Phe Ser Ala Thr Arg Arg Gln Phe
          325          330          335
Gly Pro Thr Glu Glu Glu Glu Ile Pro Val Leu Glu Tyr Pro Met Gln
          340          345          350
Gln Trp Arg Leu Leu Pro Tyr Leu Ala Ala Val Tyr Ala Leu Asp His
          355          360          365
Phe Ser Lys Ser Leu Phe Leu Asp Leu Val Glu Leu Gln Arg Gly Leu
          370          375          380
Ala Ser Gly Asp Arg Ser Ala Arg Gln Ala Glu Leu Gly Arg Glu Ile
385          390          395          400
His Ala Leu Ala Ser Ala Ser Lys Pro Leu Ala Ser Trp Thr Thr Gln
          405          410          415
Gln Gly Ile Gln Glu Cys Arg Glu Ala Cys Gly Gly His Gly Tyr Leu
          420          425          430
Ala Met Asn Arg Leu Gly Val Leu Arg Asp Asp Asn Asp Pro Asn Cys
          435          440          445
Thr Tyr Glu Gly Asp Asn Asn Ile Leu Leu Gln Gln Thr Ser Asn Tyr
          450          455          460
Leu Leu Gly Leu Leu Ala His Gln Val His Asp Gly Ala Cys Phe Arg
465          470          475          480
Ser Pro Leu Lys Ser Val Asp Phe Leu Asp Ala Tyr Pro Gly Ile Leu
          485          490          495
Asp Gln Lys Phe Glu Val Ser Ser Val Ala Asp Cys Leu Asp Ser Ala
          500          505          510
Val Ala Leu Ala Ala Tyr Lys Trp Leu Val Cys Tyr Leu Leu Arg Glu
          515          520          525
Thr Tyr Gln Lys Leu Asn Gln Glu Lys Arg Ser Gly Ser Ser Asp Phe
          530          535          540
Glu Ala Arg Asn Lys Cys Gln Val Ser His Gly Arg Pro Leu Ala Leu
545          550          555          560
Ala Phe Val Asp Leu Thr Val Val Gln Arg Phe His Glu His Val His
          565          570          575
Gln Pro Ser Val Pro Pro Ser Leu Arg Ala Val Leu Gly Arg Leu Ser
          580          585          590
Ala Leu Tyr Ala Leu Trp Ser Leu Ser Arg His Ala Ala Leu Leu Tyr
          595          600          605
Arg Gly Gly Tyr Phe Ser Gly Glu Gln Ala Gly Glu Val Leu Glu Ser
          610          615          620
Ala Val Leu Ala Leu Cys Ser Gln Leu Lys Asp Asp Ala Val Ala Leu
625          630          635          640
Val Asp Val Ile Ala Pro Pro Asp Phe Val Leu Asp Ser Pro Ile Gly
          645          650          655
Arg Ala Asp Gly Glu Leu Tyr Lys Asn Leu Trp Gly Ala Val Leu Gln
          660          665          670
Glu Ser Lys Val Leu Glu Arg Ala Ser Trp Trp Pro Glu Phe Ser Val
          675          680          685
Asn Lys Pro Val Ile Gly Ser Leu Lys Ser Lys Leu *
          690          695          700

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<210> 1841

<211> 234

<212> PRT

<213> Homo sapiens

<400> 1841

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Met Glu Arg Val Gly Cys Thr Leu Thr Thr Thr Tyr Ala His Pro Arg
1          5          10          15
Pro Thr Pro Thr Asn Phe Leu Pro Ala Ile Ser Thr Met Ala Ser Ser
          20          25          30

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Tyr Arg Asp Arg Phe Pro His Ser Asn Leu Thr His Ser Leu Ser Leu
 35 40 45
 Pro Trp Arg Pro Ser Thr Tyr Tyr Lys Val Ala Ser Asn Ser Pro Ser
 50 55 60
 Val Ala Pro Tyr Cys Thr Arg Ser Gln Arg Val Ser Glu Asn Thr Met
 65 70 75 80
 Leu Pro Phe Val Ser Asn Arg Thr Thr Phe Phe Thr Arg Tyr Thr Pro
 85 90 95
 Asp Asp Trp Tyr Arg Ser Asn Leu Thr Asn Tyr Gln Glu Ser Asn Thr
 100 105 110
 Ser Arg His Asn Ser Glu Lys Leu Arg Val Asp Thr Ser Arg Leu Ile
 115 120 125
 Gln Asp Lys Tyr Gln Gln Thr Arg Lys Thr Gln Ala Asp Thr Thr Gln
 130 135 140
 Asn Leu Gly Glu Arg Val Asn Asp Ile Gly Phe Trp Lys Ser Glu Ile
 145 150 155 160
 Ile His Glu Leu Asp Glu Met Ile Gly Glu Thr Asn Ala Leu Thr Asp
 165 170 175
 Val Lys Lys Arg Leu Glu Arg Ala Leu Met Glu Thr Glu Ala Pro Leu
 180 185 190
 Gln Val Ala Arg Glu Cys Leu Phe His Arg Glu Lys Arg Met Gly Ile
 195 200 205
 Asp Leu Val His Asp Glu Val Glu Ala Gln Leu Leu Thr Val Asn Val
 210 215 220
 Gly Glu Met His Gln Ser Gln Ala Ala *
 225 230 233

<210> 1842

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1842

Met Gly Lys Thr Asn Ser Lys Leu Ala Pro Glu Val Leu Glu Asp Leu
 1 5 10 15
 Val Gln Asn Thr Glu Phe Ser Glu Gln Glu Leu Lys Gln Trp Tyr Lys
 20 25 30
 Gly Phe Leu Lys Asp Cys Pro Ser Gly Ile Leu Asn Leu Glu Glu Phe
 35 40 45
 Gln Gln Leu Tyr Ile Lys Phe Phe Pro Tyr Gly Asp Ala Ser Lys Phe
 50 55 60
 Ala Gln His Ala Phe Arg Thr Phe Asp Lys Asn Gly Asp Gly Thr Ile
 65 70 75 80
 Asp Phe Arg Glu Phe Ile Cys Ala Leu Ser Val Thr Ser Arg Gly Ser
 85 90 95
 Phe Glu Gln Lys Leu Asn Trp Ala Phe Glu Met Tyr Asp Leu Asp Gly
 100 105 110
 Asp Gly Arg Ile Thr Arg Leu Glu Met Leu Glu Ile Ile Glu Ala Ile
 115 120 125
 Tyr Lys Met Val Gly Thr Val Ile Met Met Arg Met Asn Gln Asp Gly
 130 135 140
 Leu Thr Pro Gln Gln Arg Val Asp Lys Ile Phe Lys Lys Met Asp Gln
 145 150 155 160
 Asp Lys Asp Asp Gln Ile Thr Leu Glu Glu Phe Lys Glu Ala Ala Lys
 165 170 175
 Ser Asp Pro Ser Ile Val Leu Leu Leu Gln Cys Asp Met Gln Lys *
 180 185 190 191

<210> 1843

<211> 339
 <212> PRT
 <213> Homo sapiens

<400> 1843
 Met Ala Lys Trp Gly Glu Gly Asp Pro Arg Trp Ile Val Glu Glu Arg
 1 5 10 15
 Ala Asp Ala Thr Asn Val Asn Asn Trp His Trp Thr Glu Arg Asp Ala
 20 25 30
 Ser Asn Trp Ser Thr Asp Lys Leu Lys Thr Leu Phe Leu Ala Val Gln
 35 40 45
 Val Gln Asn Glu Glu Gly Lys Cys Glu Val Thr Glu Val Ser Lys Leu
 50 55 60
 Asp Gly Glu Ala Ser Ile Asn Asn Arg Lys Gly Lys Leu Ile Phe Phe
 65 70 75 80
 Tyr Glu Trp Ser Val Lys Leu Asn Trp Thr Gly Thr Ser Lys Ser Gly
 85 90 95
 Val Gln Tyr Lys Gly His Val Glu Ile Pro Asn Leu Ser Asp Glu Asn
 100 105 110
 Ser Val Asp Glu Val Glu Ile Ser Val Ser Leu Ala Lys Asp Glu Pro
 115 120 125
 Asp Thr Asn Leu Val Ala Leu Met Lys Glu Glu Gly Val Lys Leu Leu
 130 135 140
 Arg Glu Ala Met Gly Ile Tyr Ile Ser Thr Leu Lys Thr Glu Phe Thr
 145 150 155 160
 Gln Gly Met Ile Leu Pro Thr Met Asn Gly Glu Ser Val Asp Pro Val
 165 170 175
 Gly Gln Pro Ala Leu Lys Thr Glu Glu Arg Lys Ala Lys Pro Ala Pro
 180 185 190
 Ser Lys Thr Gln Ala Arg Pro Val Gly Val Lys Ile Pro Thr Cys Lys
 195 200 205
 Ile Thr Leu Lys Glu Thr Phe Leu Thr Ser Pro Glu Glu Leu Tyr Arg
 210 215 220
 Val Phe Thr Thr Gln Glu Leu Val Gln Ala Phe Thr His Ala Pro Ala
 225 230 235 240
 Thr Leu Glu Ala Asp Arg Gly Gly Lys Phe His Met Val Asp Gly Asn
 245 250 255
 Val Ser Gly Glu Phe Thr Asp Leu Val Pro Glu Lys His Ile Val Met
 260 265 270
 Lys Trp Arg Phe Lys Ser Trp Pro Glu Gly His Phe Ala Thr Ile Thr
 275 280 285
 Leu Thr Phe Ile Asp Lys Asn Gly Glu Thr Glu Leu Cys Met Glu Gly
 290 295 300
 Arg Gly Ile Pro Ala Pro Glu Glu Glu Arg Thr Arg Gln Gly Trp Gln
 305 310 315 320
 Arg Tyr Tyr Phe Glu Gly Ile Lys Gln Thr Phe Gly Tyr Gly Ala Arg
 325 330 335
 Leu Phe *
 338

<210> 1844
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 1844
 Met Ser Tyr Leu Lys Gln Pro Pro Tyr Ala Val Asn Gly Leu Ser Leu
 1 5 10 15
 Thr Thr Ser Gly Met Asp Leu Leu His Pro Ser Val Gly Tyr Pro Gly
 20 25 30

```

Leu Pro Ser Glu Glu Ala Val Pro Gly His Leu Leu Thr Lys Gln Arg
   35           40           45
Thr Gly Val Gly Lys Thr Thr Pro Arg Lys Gln Arg Arg Glu Arg Thr
   50           55           60
Thr Phe Thr Arg Ala Gln Leu Asp Val Leu Glu Ala Leu Phe Ala Lys
   65           70           75           80
Thr Arg Tyr Pro Asp Ile Phe Met Arg Glu Glu Val Ala Leu Lys Ile
           85           90           95
Asn Leu Pro Glu Ser Arg Val Gln Val Trp Phe Lys Asn Arg Arg Ala
           100          105          110
Lys Cys Arg Gln Gln Gln Gln Gln Gln Asn Gly Gly Gln Asn Lys
           115          120          125
Val Arg Pro Ala Lys Lys Lys Thr Ser Pro Ala Arg Glu Val Ser Ser
           130          135          140
Glu Ser Gly Thr Ser Gly Gln Phe Thr Pro Pro Ser Ser Thr Ser Val
           145          150          155          160
Pro Thr Ile Ala Ser Ser Ser Ala Pro Val Ser Ile Trp Ser Pro Ala
           165          170          175
Ser Ile Ser Pro Leu Ser Asp Pro Leu Ser Thr Ser Ser Ser Cys Met
           180          185          190
Gln Arg Ser Tyr Pro Met Thr Tyr Thr Gln Ala Ser Gly Tyr Ser Gln
           195          200          205
Gly Tyr Ala Gly Ser Thr Ser Tyr Phe Gly Gly Met Asp Cys Gly Ser
           210          215          220
Tyr Leu Thr Pro Met His His Gln Leu Pro Gly Pro Gly Ala Thr Leu
           225          230          235          240
Ser Pro Met Gly Thr Asn Ala Val Thr Ser His Leu Asn Gln Ser Pro
           245          250          255
Ala Ser Leu Ser Thr Gln Gly Tyr Gly Ala Ser Ser Leu Gly Phe Asn
           260          265          270
Ser Thr Thr Asp Cys Leu Asp Tyr Lys Asp Gln Thr Ala Ser Trp Lys
           275          280          285
Leu Asn Phe Asn Ala Asp Cys Leu Asp Tyr Lys Asp Gln Thr Ser Ser
           290          295          300
Trp Lys Phe Gln Val Leu *
           305          310

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<210> 1845
 <211> 455
 <212> PRT
 <213> Homo sapiens

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<400> 1845
Met Ala Gln Arg Asp Trp Thr Trp Val Pro Ser Gly Ala Ala Ala Met
  1           5           10           15
Gly Leu Gly Val Ser Ala Glu Gln Pro Ala Gly Gly Ala Glu Gly Phe
           20           25           30
His Leu His Gly Val Gln Glu Asn Ser Pro Ala Gln Gln Ala Gly Leu
           35           40           45
Glu Pro Tyr Phe Asp Phe Ile Ile Thr Ile Gly His Ser Arg Leu Asn
           50           55           60
Lys Glu Asn Asp Thr Leu Lys Ala Leu Leu Lys Ala Asn Val Glu Lys
           65           70           75           80
Pro Val Lys Leu Glu Val Phe Asn Met Lys Thr Met Arg Val Arg Glu
           85           90           95
Val Glu Val Val Pro Ser Asn Met Trp Gly Gly Gln Gly Leu Leu Gly
           100          105          110
Ala Ser Val Arg Phe Cys Ser Phe Arg Arg Ala Ser Glu Gln Val Trp
           115          120          125
His Val Leu Asp Val Glu Pro Ser Ser Pro Ala Ala Leu Ala Gly Leu
           130          135          140

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Arg Pro Tyr Thr Asp Tyr Val Val Gly Ser Asp Gln Ile Leu Gln Glu
145          150          155          160
Ser Glu Asp Phe Phe Thr Leu Ile Glu Ser His Glu Gly Lys Pro Leu
          165          170          175
Lys Leu Met Val Tyr Asn Ser Lys Ser Asp Ser Cys Arg Glu Val Thr
          180          185          190
Val Thr Pro Asn Ala Ala Trp Gly Gly Glu Gly Ser Leu Gly Cys Gly
          195          200          205
Ile Gly Tyr Gly Tyr Leu His Arg Ile Pro Thr Gln Pro Pro Ser Tyr
210          215          220
His Lys Lys Pro Pro Gly Thr Pro Pro Pro Ser Ala Leu Pro Leu Gly
225          230          235          240
Ala Pro Pro Pro Asp Ala Leu Pro Pro Gly Pro Thr Pro Glu Asp Ser
          245          250          255
Pro Ser Leu Glu Thr Gly Ser Arg Gln Ser Asp Tyr Met Glu Ala Leu
          260          265          270
Leu Gln Ala Pro Gly Ser Ser Met Glu Asp Pro Leu Pro Gly Pro Gly
275          280          285
Ser Pro Ser His Ser Ala Pro Asp Pro Asp Gly Leu Pro His Phe Met
290          295          300
Glu Thr Pro Leu Gln Pro Pro Pro Pro Val Gln Arg Val Met Asp Pro
305          310          315          320
Gly Phe Leu Asp Val Ser Gly Ile Ser Leu Leu Asp Asn Ser Asn Ala
          325          330          335
Ser Val Trp Pro Ser Leu Pro Ser Ser Thr Glu Leu Thr Thr Thr Ala
          340          345          350
Val Ser Thr Ser Gly Pro Glu Asp Ile Cys Ser Ser Ser Ser Ser His
355          360          365
Glu Arg Gly Gly Glu Ala Thr Trp Ser Gly Ser Glu Phe Glu Val Ser
370          375          380
Phe Leu Asp Ser Pro Gly Ala Gln Ala Gln Ala Asp His Leu Pro Gln
385          390          395          400
Leu Thr Leu Pro Asp Ser Leu Thr Ser Ala Ala Ser Pro Glu Asp Gly
          405          410          415
Leu Ser Ala Glu Leu Leu Glu Ala Gln Ala Glu Glu Glu Pro Ala Ser
          420          425          430
Thr Glu Gly Leu Asp Thr Gly Thr Glu Ala Glu Gly Leu Asp Ser Gln
435          440          445
Ala Gln Ile Ser Thr Thr Glu
450          455

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<210> 1846

<211> 250

<212> PRT

<213> Homo sapiens

<400> 1846

```

Met Ala Glu Arg Gly Glu Leu Asp Leu Thr Gly Ala Lys Gln Asn Thr
1          5          10          15
Gly Val Trp Leu Val Lys Val Pro Lys Tyr Leu Ser Gln Gln Trp Ala
          20          25          30
Lys Ala Ser Gly Arg Gly Glu Val Gly Lys Leu Arg Ile Ala Lys Thr
          35          40          45
Gln Gly Arg Thr Glu Val Ser Phe Thr Leu Asn Glu Asp Leu Ala Asn
50          55          60
Ile His Asp Ile Gly Gly Lys Pro Ala Ser Val Ser Ala Pro Arg Glu
65          70          75          80
His Pro Phe Val Leu Gln Ser Val Gly Gly Gln Thr Leu Thr Val Phe
          85          90          95
Thr Glu Ser Ser Ser Asp Lys Leu Ser Leu Glu Gly Ile Val Val Gln
          100          105          110

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Arg Ala Glu Cys Arg Pro Ala Ala Ser Glu Asn Tyr Met Arg Leu Lys
 115 120 125
 Arg Leu Gln Ile Glu Glu Ser Ser Lys Pro Val Arg Leu Ser Gln Gln
 130 135 140
 Leu Asp Lys Val Val Thr Thr Asn Tyr Lys Pro Val Ala Asn His Gln
 145 150 155 160
 Tyr Asn Ile Glu Tyr Glu Arg Lys Lys Lys Glu Asp Gly Lys Arg Ala
 165 170 175
 Arg Ala Asp Lys Gln His Val Leu Asp Met Leu Phe Ser Ala Phe Glu
 180 185 190
 Lys His Gln Tyr Tyr Asn Leu Lys Asp Leu Val Asp Ile Thr Lys Gln
 195 200 205
 Pro Val Val Tyr Leu Lys Glu Ile Leu Lys Glu Ile Gly Val Gln Asn
 210 215 220
 Val Lys Gly Ile His Lys Asn Thr Trp Glu Leu Lys Pro Glu Tyr Arg
 225 230 235 240
 His Tyr Gln Gly Glu Glu Lys Ser Asp *
 245 249

<210> 1847
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 1847
 Met Leu Asn His Ile Ile Arg Leu Gln Ala Val Leu Glu Ile Ile Met
 1 5 10 15
 Asn Glu Arg Ala Asn Ala Leu Asp Leu Leu Ala Gln Gln Thr Thr Lys
 20 25 30
 Met Arg Asn Ala Asn Tyr Gln Asn Arg Leu Ala Leu Asp Tyr Leu Leu
 35 40 45
 Ala His Glu Gly Gly Val *
 50 54

<210> 1848
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 1848
 Met Ala Glu Arg Gly Arg Lys Arg Pro Cys Gly Pro Gly Glu His Gly
 1 5 10 15
 Gln Arg Ile Glu Trp Arg Lys Trp Lys Gln Gln Lys Lys Glu Glu Lys
 20 25 30
 Lys Lys Trp Lys Asp Leu Lys Leu Met Lys Lys Leu Glu Arg Gln Arg
 35 40 45
 Ala Gln Glu Glu Gln Ala Lys Arg Leu Glu Glu Glu Glu Ala Ala Ala
 50 55 60
 Glu Lys Glu Asp Arg Gly Arg Pro Tyr Thr Leu Ser Val Ala Leu Pro
 65 70 75 80
 Gly Ser Ile Leu Asp Asn Ala Gln Ser Pro Glu Leu Arg Thr Tyr Leu
 85 90 95
 Ala Gly Gln Ile Ala Arg Ala Cys Ala Ile Phe Cys Val Asp Glu Ile
 100 105 110
 Val Val Phe Asp Glu Glu Gly Gln Asp Ala Lys Thr Val Glu Gly Glu
 115 120 125
 Phe Thr Gly Val Gly Lys Lys Gly Gln Ala Cys Val Gln Leu Ala Arg
 130 135 140

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Ile Leu Gln Tyr Leu Glu Cys Pro Gln Tyr Leu Arg Lys Ala Phe Phe
145          150          155          160
Pro Lys His Gln Asp Leu Gln Phe Ala Gly Leu Leu Asn Pro Leu Asp
          165          170          175
Ser Pro His His Met Arg Gln Asp Glu Glu Ser Glu Phe Arg Glu Gly
          180          185          190
Ile Val Val Asp Arg Pro Thr Arg Pro Gly His Gly Ser Phe Val Asn
          195          200          205
Cys Gly Met Lys Lys Glu Val Lys Ile Asp Lys Asn Leu Glu Pro Gly
          210          215          220
Leu Arg Val Thr Val Arg Leu Asn Gln Gln Gln His Pro Asp Cys Lys
225          230          235          240
Thr Tyr His Gly Lys Val Val Ser Ser Gln Asp Pro Arg Thr Lys Ala
          245          250          255
Gly Leu Tyr Trp Gly Tyr Thr Val Arg Leu Ala Ser Cys Leu Ser Ala
          260          265          270
Val Phe Ala Glu Ala Pro Phe Gln Asp Gly Tyr Asp Leu Thr Ile Gly
          275          280          285
Thr Ser Glu Arg Gly Ser Asp Val Ala Ser Ala Gln Leu Pro Asn Phe
          290          295          300
Arg His Ala Leu Val Val Phe Gly Gly Leu Gln Gly Leu Glu Ala Gly
305          310          315          320
Ala Asp Ala Asp Pro Asn Leu Glu Val Ala Glu Pro Ser Val Leu Phe
          325          330          335
Asp Leu Tyr Val Asn Thr Cys Pro Gly Gln Gly Ser Arg Thr Ile Arg
          340          345          350
Thr Glu Glu Ala Ile Leu Ile Ser Leu Ala Ala Leu Gln Pro Gly Leu
          355          360          365
Thr Gln Ala Gly Ala Arg His Thr *
          370          375 376

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<210> 1849
 <211> 312
 <212> PRT
 <213> Homo sapiens

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          <400> 1849
Met Ser Asn Phe Thr His Tyr Ala Tyr Leu Leu Met Ile Glu Ser Leu
  1          5          10          15
Met Leu Gly Lys Val Pro Pro His Val Pro Ser His His Phe Ile Phe
          20          25          30
His Asp Asp Gly Ser Ala Arg Gln Lys Gly Glu Ser Asp Tyr Lys Val
          35          40          45
Ile Ile Gln Gln Trp Phe Ser Lys Ser Gly Pro Trp Thr Thr Ser Ser
          50          55          60
Asn Val Thr Trp Gly Leu Leu Glu Leu Gln Gln Ser Ile Ser Glu Ser
          65          70          75          80
Ala Val Leu Thr Ile Pro Pro Gly Asp Ser Gly Ala Gly Ser Asn Leu
          85          90          95
Ile Thr Met Phe Leu Arg Asn Arg Lys Glu Thr Asp Leu Cys Ser Gly
          100          105          110
Arg Ser Lys Val Asn Arg Gly Trp Asn Ser Gly Arg Cys Lys Gln Arg
          115          120          125
Gly Lys Thr Glu Gln Pro Gly Glu Pro Leu Glu His Val Tyr Val Thr
          130          135          140
Ile Lys His Ala Val Ala Leu Glu Ser Arg His Gln Lys Gly Glu Leu
145          150          155          160
Gln Cys Leu Ile Lys Met Cys Ile Pro Leu Ser Lys Pro Leu Gln Met
          165          170          175
Phe Phe Ser Pro Pro His Trp Glu Ala Trp Leu Gln Arg Val Gln Gln
          180          185          190

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Leu Ala Lys Asn Thr Arg Tyr Phe Arg Gln Arg Leu Gln Glu Met Gly
    195                200                205
Phe Ile Ile Tyr Gly Asn Glu Asn Ala Ser Val Val Pro Leu Leu Leu
    210                215                220
Tyr Met Pro Gly Lys Val Ala Ala Phe Ala Arg His Met Leu Glu Lys
    225                230                235                240
Lys Ile Gly Val Val Val Val Gly Phe Pro Ala Thr Pro Leu Ala Glu
    245                250                255
Ala Arg Ala Arg Phe Cys Val Ser Ala Ala His Thr Arg Glu Met Leu
    260                265                270
Asp Thr Val Leu Glu Ala Leu Asp Glu Met Gly Asp Leu Leu Gln Leu
    275                280                285
Lys Tyr Ser Arg His Lys Lys Ser Ala Arg Pro Glu Leu Tyr Asp Glu
    290                295                300
Thr Ser Phe Glu Leu Glu Asp *
    305                310 311

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<210> 1850
<211> 96
<212> PRT
<213> Homo sapiens

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<400> 1850
Met Val Val Ile Asp Val Lys Met Leu Ser Gly Phe Thr Pro Thr Met
  1          5          10          15
Ser Ser Ile Glu Glu Leu Glu Asn Lys Gly Gln Val Met Lys Thr Glu
    20          25          30
Val Lys Asn Asp His Val Leu Phe Tyr Leu Glu Asn Gly Phe Gly Arg
    35          40          45
Ala Asp Ser Phe Pro Phe Ser Val Glu Gln Ser Asn Leu Val Phe Asn
    50          55          60
Ile Gln Pro Ala Pro Ala Met Val Tyr Asp Tyr Tyr Glu Lys Glu Glu
    65          70          75          80
Tyr Ala Leu Ala Phe Tyr Asn Ile Asp Ser Ser Ser Val Ser Glu *
    85          90          95

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<210> 1851
<211> 737
<212> PRT
<213> Homo sapiens

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<400> 1851
Met Ala Thr Glu Gly Met Ile Leu Thr Asn His Asp His Gln Ile Arg
  1          5          10          15
Val Gly Val Leu Thr Val Ser Asp Ser Cys Phe Arg Asn Leu Ala Glu
    20          25          30
Asp Arg Ser Gly Ile Asn Leu Lys Asp Leu Val Gln Asp Pro Ser Leu
    35          40          45
Leu Gly Gly Thr Ile Ser Ala Tyr Lys Ile Val Pro Asp Glu Ile Glu
    50          55          60
Glu Ile Lys Glu Thr Leu Ile Asp Trp Cys Asp Glu Lys Glu Leu Asn
    65          70          75          80
Leu Ile Leu Thr Thr Gly Gly Thr Gly Phe Ala Pro Arg Asp Val Thr
    85          90          95
Pro Glu Ala Thr Lys Glu Val Ile Glu Arg Glu Ala Pro Gly Met Ala
    100          105          110
Leu Ala Met Leu Met Gly Ser Leu Asn Val Thr Pro Leu Gly Met Leu
    115          120          125

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Ser Arg Pro Val Cys Gly Ile Arg Gly Lys Thr Leu Ile Ile Asn Leu
130 135 140
Pro Gly Ser Lys Lys Gly Ser Gln Glu Cys Phe Gln Phe Ile Leu Pro
145 150 155 160
Ala Leu Pro His Ala Ile Asp Leu Leu Arg Asp Ala Ile Val Lys Val
165 170 175
Lys Glu Val His Asp Glu Leu Glu Asp Leu Pro Ser Pro Pro Pro Pro
180 185 190
Leu Ser Pro Pro Pro Thr Thr Ser Pro His Lys Gln Thr Glu Asp Lys
195 200 205
Gly Val Gln Cys Glu Glu Glu Glu Glu Lys Lys Asp Ser Gly Val
210 215 220
Ala Ser Thr Glu Asp Ser Ser Ser Ser His Ile Thr Ala Ala Ala Ile
225 230 235 240
Ala Ala Lys Ile Pro Asp Ser Ile Ile Ser Arg Gly Val Gln Val Leu
245 250 255
Pro Arg Asp Thr Ala Ser Leu Ser Thr Thr Pro Ser Glu Ser Pro Arg
260 265 270
Ala Gln Ala Thr Ser Arg Leu Ser Thr Ala Ser Cys Pro Thr Pro Lys
275 280 285
Val Gln Ser Arg Cys Ser Ser Lys Glu Asn Ile Leu Arg Ala Ser His
290 295 300
Ser Ala Val Asp Ile Thr Lys Val Ala Arg Arg His Arg Met Ser Pro
305 310 315 320
Phe Pro Leu Thr Ser Met Asp Lys Ala Phe Ile Thr Val Leu Glu Met
325 330 335
Thr Pro Val Leu Gly Thr Glu Ile Ile Asn Tyr Arg Asp Gly Met Gly
340 345 350
Arg Val Leu Ala Gln Asp Val Tyr Ala Lys Asp Asn Leu Pro Pro Phe
355 360 365
Pro Ala Ser Val Lys Asp Gly Tyr Ala Val Arg Ala Ala Asp Gly Pro
370 375 380
Gly Asp Arg Phe Ile Ile Gly Glu Ser Gln Ala Gly Glu Gln Pro Thr
385 390 395 400
Gln Thr Val Met Pro Gly Gln Val Met Arg Val Thr Thr Gly Ala Pro
405 410 415
Ile Pro Cys Gly Ala Asp Ala Val Val Gln Val Glu Asp Thr Glu Leu
420 425 430
Ile Arg Glu Ser Asp Asp Gly Thr Glu Glu Leu Glu Val Arg Ile Leu
435 440 445
Val Gln Ala Arg Pro Gly Gln Asp Ile Arg Pro Ile Gly His Asp Ile
450 455 460
Lys Arg Gly Glu Cys Val Leu Ala Lys Gly Thr His Met Gly Pro Ser
465 470 475 480
Glu Ile Gly Leu Leu Ala Thr Val Gly Val Thr Glu Val Glu Val Asn
485 490 495
Lys Phe Pro Val Val Ala Val Met Ser Thr Gly Asn Glu Leu Leu Asn
500 505 510
Pro Glu Asp Asp Leu Leu Pro Gly Lys Ile Arg Asp Ser Asn Arg Ser
515 520 525
Thr Leu Leu Ala Thr Ile Gln Glu His Gly Tyr Pro Thr Ile Asn Leu
530 535 540
Gly Ile Val Gly Asp Asn Pro Asp Asp Leu Leu Asn Ala Leu Asn Glu
545 550 555 560
Gly Ile Ser Arg Ala Asp Val Ile Ile Thr Ser Gly Gly Val Ser Met
565 570 575
Gly Glu Lys Asp Tyr Leu Lys Gln Val Leu Asp Ile Asp Leu His Ala
580 585 590
Gln Ile His Phe Gly Arg Val Phe Met Lys Pro Gly Leu Pro Thr Thr
595 600 605
Phe Ala Thr Leu Asp Ile Asp Gly Val Arg Lys Ile Ile Phe Ala Leu
610 615 620
Pro Gly Asn Pro Val Ser Ala Val Val Thr Cys Asn Leu Phe Val Val
625 630 635 640

```

Pro Ala Leu Arg Lys Met Gln Gly Ile Leu Asp Pro Arg Pro Thr Ile
645 650 655
Ile Lys Ala Arg Leu Ser Cys Asp Val Lys Leu Asp Pro Arg Pro Glu
660 665 670
Tyr His Arg Cys Ile Leu Thr Trp His His Gln Glu Pro Leu Pro Trp
675 680 685
Ala Gln Ser Thr Gly Asn Gln Met Ser Ser Arg Leu Met Ser Met Arg
690 695 700
Ser Ala Asn Gly Leu Leu Met Leu Pro Pro Lys Thr Glu Gln Tyr Val
705 710 715 720
Glu Leu His Lys Gly Glu Val Val Asp Val Met Val Ile Gly Arg Leu
725 730 735 736

*

<210> 1852
<211> 651
<212> PRT
<213> Homo sapiens

<400> 1852
Met Ala Gly Arg Glu Ala Leu Ser Leu Gly Thr Glu Ala Glu Leu Pro
1 5 10 15
Asn Ser Leu Pro Gly Asp Asp Gln Asp Glu Cys Leu Leu Leu Pro Gly
20 25 30
Glu Leu Cys Gln His Leu Cys Ile Asn Thr Val Gly Ser Tyr His Cys
35 40 45
Ala Cys Phe Pro Gly Phe Ser Leu Gln Asp Asp Gly Arg Thr Cys Arg
50 55 60
Pro Glu Gly His Pro Pro Gln Pro Glu Ala Pro Gln Glu Pro Ala Leu
65 70 75 80
Lys Ser Glu Phe Ser Gln Val Ala Ser Asn Thr Ile Pro Leu Pro Leu
85 90 95
Pro Gln Pro Asn Thr Cys Lys Asp Asn Gly Pro Cys Lys Gln Val Cys
100 105 110
Ser Thr Val Gly Gly Ser Ala Ile Cys Ser Cys Phe Pro Gly Tyr Ala
115 120 125
Ile Met Ala Asp Gly Val Ser Cys Glu Asp Gln Asp Glu Cys Leu Met
130 135 140
Gly Ala His Asp Cys Ser Arg Arg Gln Phe Cys Val Asn Thr Leu Gly
145 150 155 160
Ser Phe Tyr Cys Val Asn His Thr Val Leu Cys Ala Asp Gly Tyr Ile
165 170 175
Leu Asn Ala His Arg Lys Cys Val Asp Ile Asn Glu Cys Val Thr Asp
180 185 190
Leu His Thr Cys Ser Arg Gly Glu His Cys Val Asn Thr Leu Gly Ser
195 200 205
Phe His Cys Tyr Lys Ala Leu Thr Cys Glu Pro Gly Tyr Ala Leu Lys
210 215 220
Asp Gly Glu Cys Glu Asp Val Asp Glu Cys Ala Met Gly Thr His Thr
225 230 235 240
Cys Gln Pro Gly Phe Leu Cys Gln Asn Thr Lys Gly Ser Phe Tyr Cys
245 250 255
Gln Ala Arg Gln Arg Cys Met Asp Gly Phe Leu Gln Asp Pro Glu Gly
260 265 270
Asn Cys Val Asp Ile Asn Glu Cys Thr Ser Leu Ser Glu Pro Cys Arg
275 280 285
Pro Gly Phe Ser Cys Ile Asn Thr Val Gly Ser Tyr Thr Cys Gln Arg
290 295 300
Asn Pro Leu Ile Cys Ala Arg Gly Tyr His Ala Ser Asp Asp Gly Thr
305 310 315 320

Lys Cys Val Asp Val Asn Glu Cys Glu Thr Gly Val His Arg Cys Gly
 325 330 335
 Glu Gly Gln Val Cys His Asn Leu Pro Gly Ser Tyr Arg Cys Asp Cys
 340 345 350
 Lys Ala Gly Phe Gln Arg Asp Ala Phe Gly Arg Gly Cys Ile Asp Val
 355 360 365
 Asn Glu Cys Trp Ala Ser Pro Gly Arg Leu Cys Gln His Thr Cys Glu
 370 375 380
 Asn Thr Leu Gly Ser Tyr Arg Cys Ser Cys Ala Ser Gly Phe Leu Leu
 385 390 395 400
 Ala Ala Asp Gly Lys Arg Cys Glu Asp Val Asn Glu Cys Glu Ala Gln
 405 410 415
 Arg Cys Ser Gln Glu Cys Ala Asn Ile Tyr Gly Ser Tyr Gln Cys Tyr
 420 425 430
 Cys Arg Gln Gly Tyr Gln Leu Ala Glu Asp Gly His Thr Cys Thr Asp
 435 440 445
 Ile Asp Glu Cys Ala Gln Gly Ala Gly Ile Leu Cys Thr Phe Arg Cys
 450 455 460
 Leu Asn Val Pro Gly Ser Tyr Gln Cys Ala Cys Pro Glu Gln Gly Tyr
 465 470 475 480
 Thr Met Thr Ala Asn Gly Arg Ser Cys Lys Asp Val Asp Glu Cys Ala
 485 490 495
 Leu Gly Thr His Asn Cys Ser Glu Ala Glu Thr Cys His Asn Ile Gln
 500 505 510
 Gly Ser Phe Arg Cys Leu Arg Phe Glu Cys Pro Pro Asn Tyr Val Gln
 515 520 525
 Val Ser Lys Thr Lys Cys Glu Arg Thr Thr Cys His Asp Phe Leu Glu
 530 535 540
 Cys Gln Asn Ser Pro Ala Arg Ile Thr His Tyr Gln Leu Asn Phe Gln
 545 550 555 560
 Thr Gly Leu Leu Val Pro Ala His Ile Phe Arg Ile Gly Pro Ala Pro
 565 570 575
 Ala Phe Thr Gly Asp Thr Ile Ala Leu Asn Ile Ile Lys Gly Asn Glu
 580 585 590
 Glu Gly Tyr Phe Gly Thr Arg Arg Leu Asn Ala Tyr Thr Gly Val Val
 595 600 605
 Tyr Leu Gln Arg Ala Val Leu Glu Pro Arg Asp Phe Ala Leu Asp Val
 610 615 620
 Glu Met Lys Leu Trp Arg Gln Gly Ser Val Thr Thr Phe Leu Ala Lys
 625 630 635 640
 Met His Ile Phe Phe Thr Thr Phe Ala Leu *
 645 650

<210> 1853

<211> 604

<212> PRT

<213> Homo sapiens

<400> 1853

Met Ala Gly Arg Glu Ala Leu Ser Leu Gly Thr Glu Ala Glu Leu Pro
 1 5 10 15
 Asn Ser Leu Pro Gly Asp Asp Gln Asp Glu Cys Leu Leu Leu Pro Gly
 20 25 30
 Glu Leu Cys Gln His Leu Cys Ile Asn Thr Val Gly Ser Tyr His Cys
 35 40 45
 Ala Cys Phe Pro Gly Phe Ser Leu Gln Asp Asp Gly Arg Thr Cys Arg
 50 55 60
 Pro Glu Gly His Pro Pro Gln Pro Glu Ala Pro Gln Glu Pro Ala Leu
 65 70 75 80
 Lys Ser Glu Phe Ser Gln Val Ala Ser Asn Thr Ile Pro Leu Pro Leu
 85 90 95

Pro	Gln	Pro	Asn	Thr	Cys	Lys	Asp	Asn	Gly	Pro	Cys	Lys	Gln	Val	Cys	
			100					105					110			
Ser	Thr	Val	Gly	Gly	Ser	Ala	Ile	Cys	Ser	Cys	Phe	Pro	Gly	Tyr	Ala	
		115					120					125				
Ile	Met	Ala	Asp	Gly	Val	Ser	Cys	Glu	Asp	Ile	Asn	Glu	Cys	Val	Thr	
	130					135					140					
Asp	Leu	His	Thr	Cys	Ser	Arg	Gly	Glu	His	Cys	Val	Asn	Thr	Leu	Gly	
145					150					155					160	
Ser	Phe	His	Cys	Tyr	Lys	Ala	Leu	Thr	Cys	Glu	Pro	Gly	Tyr	Ala	Leu	
			165						170					175		
Lys	Asp	Gly	Glu	Cys	Glu	Asp	Val	Asp	Glu	Cys	Ala	Met	Gly	Thr	His	
			180					185						190		
Thr	Cys	Gln	Pro	Gly	Phe	Leu	Cys	Gln	Asn	Thr	Lys	Gly	Ser	Phe	Tyr	
	195						200					205				
Cys	Gln	Ala	Arg	Gln	Arg	Cys	Met	Asp	Gly	Phe	Leu	Gln	Asp	Pro	Glu	
	210					215					220					
Gly	Asn	Cys	Val	Asp	Ile	Asn	Glu	Cys	Thr	Ser	Leu	Ser	Glu	Pro	Cys	
225					230					235				240		
Arg	Pro	Gly	Phe	Ser	Cys	Ile	Asn	Thr	Val	Gly	Ser	Tyr	Thr	Cys	Gln	
			245						250					255		
Arg	Asn	Pro	Leu	Ile	Cys	Ala	Arg	Gly	Tyr	His	Ala	Ser	Asp	Asp	Gly	
		260						265						270		
Thr	Lys	Cys	Val	Asp	Val	Asn	Glu	Cys	Glu	Thr	Gly	Val	His	Arg	Cys	
	275						280					285				
Gly	Glu	Gly	Gln	Val	Cys	His	Asn	Leu	Pro	Gly	Ser	Tyr	Arg	Cys	Asp	
	290					295					300					
Cys	Lys	Ala	Gly	Phe	Gln	Arg	Asp	Ala	Phe	Gly	Arg	Gly	Cys	Ile	Asp	
305					310					315				320		
Val	Asn	Glu	Cys	Trp	Ala	Ser	Pro	Gly	Arg	Leu	Cys	Gln	His	Thr	Cys	
			325						330					335		
Glu	Asn	Thr	Leu	Gly	Ser	Tyr	Arg	Cys	Ser	Cys	Ala	Ser	Gly	Phe	Leu	
		340						345					350			
Leu	Ala	Ala	Asp	Gly	Lys	Arg	Cys	Glu	Asp	Val	Asn	Glu	Cys	Glu	Ala	
	355						360					365				
Gln	Arg	Cys	Ser	Gln	Glu	Cys	Ala	Asn	Ile	Tyr	Gly	Ser	Tyr	Gln	Cys	
	370					375					380					
Tyr	Cys	Arg	Gln	Gly	Tyr	Gln	Leu	Ala	Glu	Asp	Gly	His	Thr	Cys	Thr	
385					390					395				400		
Asp	Ile	Asp	Glu	Cys	Ala	Gln	Gly	Ala	Gly	Ile	Leu	Cys	Thr	Phe	Arg	
			405						410					415		
Cys	Leu	Asn	Val	Pro	Gly	Ser	Tyr	Gln	Cys	Ala	Cys	Pro	Glu	Gln	Gly	
		420						425					430			
Tyr	Thr	Met	Thr	Ala	Asn	Gly	Arg	Ser	Cys	Lys	Asp	Val	Asp	Glu	Cys	
		435					440					445				
Ala	Leu	Gly	Thr	His	Asn	Cys	Ser	Glu	Ala	Glu	Thr	Cys	His	Asn	Ile	
	450					455					460					
Gln	Gly	Ser	Phe	Arg	Cys	Leu	Arg	Phe	Glu	Cys	Pro	Pro	Asn	Tyr	Val	
465					470					475				480		
Gln	Val	Ser	Lys	Thr	Lys	Cys	Glu	Arg	Thr	Thr	Cys	His	Asp	Phe	Leu	
			485						490					495		
Glu	Cys	Gln	Asn	Ser	Pro	Ala	Arg	Ile	Thr	His	Tyr	Gln	Leu	Asn	Phe	
		500						505					510			
Gln	Thr	Gly	Leu	Leu	Val	Pro	Ala	His	Ile	Phe	Arg	Ile	Gly	Pro	Ala	
		515					520					525				
Pro	Ala	Phe	Thr	Gly	Asp	Thr	Ile	Ala	Leu	Asn	Ile	Ile	Lys	Gly	Asn	
	530					535					540					
Glu	Glu	Gly	Tyr	Phe	Gly	Thr	Arg	Arg	Leu	Asn	Ala	Tyr	Thr	Gly	Val	
545					550					555				560		
Val	Tyr	Leu	Gln	Arg	Ala	Val	Leu	Glu	Pro	Arg	Asp	Phe	Ala	Leu	Asp	
			565						570					575		
Val	Glu	Met	Lys	Leu	Trp	Arg	Gln	Gly	Ser	Val	Thr	Thr	Phe	Leu	Ala	
			580					585						590		
Lys	Met	His	Ile	Phe	Phe	Thr	Thr	Phe	Ala	Leu	*					
		595					600			603						

<210> 1854
 <211> 74
 <212> PRT
 <213> Homo sapiens

<400> 1854
 Met Glu Glu Arg Pro Leu Asp Ala Val Val Pro Phe Leu Pro Leu Gln
 1 5 10 15
 Arg His His Val Arg His Cys Val Leu Asn Glu Leu Ala Gln Leu Gly
 20 25 30
 Leu Glu Pro Arg Asp Glu Val Val Gln Ala Val Leu Asp Ser Thr Thr
 35 40 45
 Phe Phe Pro Glu Asp Glu Gln Leu Phe Ser Ser Asn Gly Cys Lys Thr
 50 55 60
 Val Ala Ser Arg Ile Ala Phe Phe Leu *
 65 70 73

<210> 1855
 <211> 1217
 <212> PRT
 <213> Homo sapiens

<400> 1855
 Met Pro Gly Ala Gln Pro Gly Val His Ala Leu Gln Leu Lys Pro Val
 1 5 10 15
 Cys Val Ser Asp Ser Leu Lys Lys Gly Thr Lys Phe Val Lys Trp Asp
 20 25 30
 Asp Asp Ser Thr Ser Val Thr Pro Ile Ile Val Arg Thr Asp Pro Gln
 35 40 45
 Gly Phe Phe Phe Tyr Trp Thr Asp Gln Asn Lys Glu Thr Glu Leu Leu
 50 55 60
 Asp Leu Ser Leu Val Lys Asp Ala Arg Cys Gly Arg His Ala Lys Ala
 65 70 75 80
 Pro Lys Asp Pro Lys Leu Arg Glu Leu Leu Asp Val Gly Asn Ile Gly
 85 90 95
 Arg Leu Glu Gln Arg Met Ile Thr Val Val Tyr Gly Pro Asp Leu Val
 100 105 110
 Asn Ile Ser His Leu Asn Leu Val Ala Phe Gln Glu Glu Val Ala Lys
 115 120 125
 Glu Trp Thr Asn Glu Val Phe Ser Leu Ala Thr Asn Leu Leu Ala Gln
 130 135 140
 Asn Met Ser Arg Asp Ala Phe Leu Glu Lys Ala Tyr Thr Lys Leu Lys
 145 150 155 160
 Leu Gln Val Thr Pro Glu Gly Arg Ile Pro Leu Lys Asn Ile Tyr Arg
 165 170 175
 Leu Phe Ser Ala Asp Arg Lys Arg Val Glu Thr Ala Leu Glu Ala Cys
 180 185 190
 Ser Leu Pro Ser Ser Arg Asn Asp Ser Ile Pro Gln Glu Asp Phe Thr
 195 200 205
 Pro Glu Val Tyr Arg Val Phe Leu Asn Asn Leu Cys Pro Arg Pro Glu
 210 215 220
 Ile Asp Asn Ile Phe Ser Glu Phe Gly Ala Lys Ser Lys Pro Tyr Leu
 225 230 235 240
 Thr Val Asp Gln Met Met Asp Phe Ile Asn Leu Lys Gln Arg Asp Pro
 245 250 255
 Arg Leu Asn Glu Ile Leu Tyr Pro Pro Leu Lys Gln Glu Gln Val Gln
 260 265 270

Val Leu Ile Glu Lys Tyr Glu Pro Asn Asn Ser Leu Ala Arg Lys Gly
 275 280 285
 Gln Ile Ser Val Asp Gly Phe Met Arg Tyr Leu Ser Gly Glu Glu Asn
 290 295 300
 Gly Val Val Ser Pro Glu Lys Leu Asp Leu Asn Glu Asp Met Ser Gln
 305 310 315 320
 Pro Leu Ser His Tyr Phe Ile Asn Ser Ser His Asn Thr Tyr Leu Thr
 325 330 335
 Ala Gly Gln Leu Ala Gly Asn Ser Ser Val Glu Met Tyr Arg Gln Val
 340 345 350
 Leu Leu Ser Gly Cys Arg Cys Val Glu Leu Asp Cys Trp Lys Gly Arg
 355 360 365
 Thr Ala Glu Glu Glu Pro Val Ile Thr His Gly Phe Thr Met Thr Thr
 370 375 380
 Glu Ile Ser Phe Lys Glu Val Ile Glu Ala Ile Ala Glu Cys Ala Phe
 385 390 395 400
 Lys Thr Ser Pro Phe Pro Ile Leu Leu Ser Phe Glu Asn His Val Asp
 405 410 415
 Ser Pro Lys Gln Gln Ala Lys Met Ala Glu Tyr Cys Arg Leu Ile Phe
 420 425 430
 Gly Asp Ala Leu Leu Met Glu Pro Leu Glu Lys Tyr Pro Leu Glu Ser
 435 440 445
 Gly Val Pro Leu Pro Ser Pro Met Asp Leu Met Tyr Lys Ile Leu Val
 450 455 460
 Lys Asn Lys Lys Lys Ser His Lys Ser Ser Glu Gly Ser Gly Lys Lys
 465 470 475 480
 Lys Leu Ser Glu Gln Ala Ser Asn Thr Tyr Ser Asp Ser Ser Ser Met
 485 490 495
 Phe Glu Pro Ser Ser Pro Gly Ala Gly Glu Ala Asp Thr Glu Ser Asp
 500 505 510
 Asp Asp Asp Asp Asp Asp Asp Cys Lys Lys Ser Ser Met Asp Glu Gly
 515 520 525
 Thr Ala Gly Ser Glu Ala Met Ala Thr Glu Glu Met Ser Asn Leu Val
 530 535 540
 Asn Tyr Ile Gln Pro Val Lys Phe Glu Ser Phe Glu Ile Ser Lys Lys
 545 550 555 560
 Arg Asn Lys Ser Phe Glu Met Ser Ser Phe Val Glu Thr Lys Gly Leu
 565 570 575
 Glu Gln Leu Thr Lys Ser Pro Val Glu Phe Val Glu Tyr Asn Lys Met
 580 585 590
 Gln Leu Ser Arg Ile Tyr Pro Lys Gly Thr Arg Val Asp Ser Ser Asn
 595 600 605
 Tyr Met Pro Gln Leu Phe Trp Asn Ala Gly Cys Gln Met Val Ala Leu
 610 615 620
 Asn Phe Gln Thr Met Asp Leu Ala Met Gln Ile Asn Met Gly Met Tyr
 625 630 635 640
 Glu Tyr Asn Gly Lys Ser Gly Tyr Arg Leu Lys Pro Glu Phe Met Arg
 645 650 655
 Arg Pro Asp Lys His Phe Asp Pro Phe Thr Glu Gly Ile Val Asp Gly
 660 665 670
 Ile Val Ala Asn Thr Leu Ser Val Lys Ile Ile Ser Gly Gln Phe Leu
 675 680 685
 Ser Asp Lys Lys Val Gly Thr Tyr Val Glu Val Asp Met Phe Gly Leu
 690 695 700
 Pro Val Asp Thr Arg Arg Lys Ala Phe Lys Thr Lys Thr Ser Gln Gly
 705 710 715 720
 Asn Ala Val Asn Pro Val Trp Glu Glu Glu Pro Ile Val Phe Lys Lys
 725 730 735
 Val Val Leu Pro Thr Leu Ala Cys Leu Arg Ile Ala Val Tyr Glu Glu
 740 745 750
 Gly Gly Lys Phe Ile Gly His Arg Ile Leu Pro Val Gln Ala Ile Arg
 755 760 765
 Pro Gly Tyr His Tyr Ile Cys Leu Arg Asn Glu Arg Asn Gln Pro Leu
 770 775 780

Thr Leu Pro Ala Val Phe Val Tyr Ile Glu Val Lys Asp Tyr Val Pro
 785 790 795 800
 Asp Thr Tyr Ala Asp Val Ile Glu Ala Leu Ser Asn Pro Ile Arg Tyr
 805 810 815
 Val Asn Leu Met Glu Gln Arg Ala Lys Gln Leu Ala Ala Leu Thr Leu
 820 825 830
 Glu Asp Glu Glu Glu Val Lys Lys Glu Ala Asp Pro Gly Glu Thr Pro
 835 840 845
 Ser Glu Ala Pro Ser Glu Ala Arg Thr Thr Pro Ala Glu Asn Gly Val
 850 855 860
 Asn His Thr Thr Thr Leu Thr Pro Lys Pro Pro Ser Gln Ala Leu His
 865 870 875 880
 Ser Gln Pro Ala Pro Gly Ser Val Lys Ala Pro Ala Lys Thr Glu Asp
 885 890 895
 Leu Ile Gln Ser Val Leu Thr Glu Val Glu Ala Gln Thr Ile Glu Glu
 900 905 910
 Leu Lys Gln Gln Lys Ser Phe Val Lys Leu Gln Lys Lys His Tyr Lys
 915 920 925
 Glu Met Lys Asp Leu Val Lys Arg His His Lys Lys Thr Thr Asp Leu
 930 935 940
 Ile Lys Glu His Thr Thr Lys Tyr Asn Glu Ile Gln Asn Asp Tyr Leu
 945 950 955 960
 Arg Arg Arg Ala Ala Leu Glu Lys Ser Ala Lys Lys Asp Ser Lys Lys
 965 970 975
 Lys Ser Glu Pro Ser Ser Pro Asp His Gly Ser Ser Thr Ile Glu Gln
 980 985 990
 Asp Leu Ala Ala Leu Asp Ala Glu Met Thr Gln Lys Leu Ile Asp Leu
 995 1000 1005
 Lys Asp Lys Gln Gln Gln Gln Leu Leu Asn Leu Arg Gln Glu Gln Tyr
 1010 1015 1020
 Tyr Ser Glu Lys Tyr Gln Lys Arg Glu His Ile Lys Leu Leu Ile Gln
 1025 1030 1035 1040
 Lys Leu Thr Asp Val Ala Glu Glu Cys Gln Asn Asn Gln Leu Lys Lys
 1045 1050 1055
 Leu Lys Glu Ile Cys Glu Lys Glu Lys Lys Glu Leu Lys Lys Lys Met
 1060 1065 1070
 Asp Lys Lys Arg Gln Glu Lys Ile Thr Glu Ala Lys Ser Lys Asp Lys
 1075 1080 1085
 Ser Gln Met Glu Glu Glu Lys Thr Glu Met Ile Arg Ser Tyr Ile Gln
 1090 1095 1100
 Glu Val Val Gln Tyr Ile Lys Arg Leu Glu Glu Ala Gln Ser Lys Arg
 1105 1110 1115 1120
 Gln Glu Lys Leu Val Glu Lys His Lys Glu Ile Arg Gln Gln Ile Leu
 1125 1130 1135
 Asp Glu Lys Pro Lys Leu Gln Val Glu Leu Glu Gln Glu Tyr Gln Asp
 1140 1145 1150
 Lys Phe Lys Arg Leu Pro Leu Glu Ile Leu Glu Phe Val Gln Glu Ala
 1155 1160 1165
 Met Lys Gly Lys Ile Ser Glu Asp Ser Asn His Gly Ser Ala Pro Leu
 1170 1175 1180
 Ser Leu Ser Ser Asp Pro Gly Lys Val Asn His Lys Thr Pro Ser Ser
 1185 1190 1195 1200
 Glu Glu Leu Gly Gly Asp Ile Pro Gly Lys Glu Phe Asp Thr Pro Leu
 1205 1210 12151216

*

<210> 1856
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 1856

```

Met Lys Phe Asp Phe Tyr Ser Phe Phe Asp Gly Thr Ala Lys Arg Arg
 1           5           10           15
Arg Phe Ser Ser Lys Pro Val Val Leu Thr Glu Ala Gln Lys Gln Leu
           20           25           30
Met Ile Cys His Leu Pro Gln Val Leu Arg Leu His Leu Lys Arg Phe
           35           40           45
Arg Trp Ser Gly Arg Asn Asn Arg Glu Lys Ile Gly Val His Val Gly
           50           55           60
Phe Glu Glu Ile Leu Asn Met Glu Pro Tyr Cys Cys Arg Glu Thr Leu
           65           70           75           80
Lys Ser Leu Arg Pro Glu Cys Phe Ile Tyr Asp Leu Ser Ala Val Val
           85           90           95
Met His His Gly Lys Gly Phe Gly Ser Gly His Tyr Thr Ala Tyr Cys
           100          105          110
Tyr Asn Ser Glu Gly Gly Phe Trp Val His Cys Asn Asp Ser Lys Leu
           115          120          125
Ser Met Cys Thr Met Asp Glu Val Cys Lys Ala Gln Ala Tyr Ile Leu
           130          135          140
Phe Tyr Thr Gln Arg Val Thr Glu Asn Gly His Ser Lys Leu Leu Pro
           145          150          155          160
Pro Glu Leu Leu Leu Gly Ser Gln His Pro Asn Glu Asp Ala Asp Thr
           165          170          175
Ser Ser Asn Glu Ile Leu Ser *
           180          183

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<210> 1857

<211> 136

<212> PRT

<213> Homo sapiens

<400> 1857

```

Met Pro Pro Pro Gln Lys Ile Pro Ser Val Arg Pro Phe Lys Gln Arg
 1           5           10           15
Lys Ser Leu Ala Ile Arg Gln Glu Glu Val Ala Gly Ile Arg Ala Lys
           20           25           30
Phe Pro Asn Lys Ile Pro Val Val Glu Arg Tyr Pro Arg Glu Thr
           35           40           45
Phe Leu Pro Pro Leu Asp Lys Thr Lys Phe Leu Val Pro Gln Glu Leu
           50           55           60
Thr Met Thr Gln Phe Leu Ser Ile Ile Arg Ser Arg Met Val Leu Arg
           65           70           75           80
Ala Thr Glu Ala Phe Tyr Leu Leu Val Asn Asn Lys Ser Leu Val Ser
           85           90           95
Met Ser Ala Thr Met Ala Glu Ile Tyr Arg Asp Cys Ile Gln Pro Tyr
           100          105          110
Asn Arg Ile Leu Asn Lys Lys Trp Leu Ala Cys Val Met Val Leu Cys
           115          120          125
Asn Glu Leu Glu Ile Ile Phe *
           130          135

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<210> 1858

<211> 425

<212> PRT

<213> Homo sapiens

<400> 1858

```

Met Cys Trp Lys Gln Met Asp Asn Ser Lys Lys Lys Phe Glu Arg Glu
 1          5          10          15
Cys Arg Glu Ala Glu Lys Ala Gln Gln Ser Tyr Glu Arg Leu Asp Asn
          20          25          30
Asp Thr Asn Ala Thr Lys Ala Asp Val Glu Lys Ala Lys Gln Gln Leu
          35          40          45
Asn Leu Arg Thr His Met Ala Asp Glu Asn Lys Asn Glu Tyr Ala Ala
          50          55          60
Gln Leu Gln Asn Phe Asn Gly Glu Gln His Lys His Phe Tyr Val Val
          65          70          75          80
Ile Pro Gln Ile Tyr Lys Gln Leu Gln Glu Met Asp Glu Arg Arg Thr
          85          90          95
Ile Lys Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys
          100          105          110
Val Ile Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala
          115          120          125
Lys Ser Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe
          130          135          140
Lys Ser Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser
          145          150          155          160
Gln His Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser Lys
          165          170          175
Gln Glu Ser Gly Lys Met Asp Ala Lys Thr Thr Val Gly Lys Ala Lys
          180          185          190
Gly Lys Leu Trp Leu Phe Gly Lys Lys Pro Lys Gly Pro Ala Leu Glu
          195          200          205
Asp Phe Ser His Leu Pro Pro Glu Gln Arg Arg Lys Lys Leu Gln Gln
          210          215          220
Arg Ile Asp Glu Leu Asn Arg Glu Leu Gln Lys Glu Ser Asp Gln Lys
          225          230          235          240
Asp Ala Leu Asn Lys Met Lys Asp Val Tyr Glu Lys Asn Pro Gln Met
          245          250          255
Gly Asp Pro Gly Ser Leu Gln Pro Lys Leu Ala Glu Thr Met Asn Asn
          260          265          270
Ile Asp Arg Leu Arg Met Glu Ile His Lys Asn Glu Ala Trp Leu Ser
          275          280          285
Glu Val Glu Gly Lys Thr Gly Gly Arg Gly Asp Arg Arg His Ser Ser
          290          295          300
Asp Ile Asn His Leu Val Thr Gln Gly Arg Glu Ser Pro Glu Gly Ser
          305          310          315          320
Tyr Thr Asp Asp Ala Asn Gln Glu Val Arg Gly Pro Pro Gln Gln His
          325          330          335
Gly His His Asn Glu Phe Asp Asp Glu Phe Glu Asp Asp Asp Pro Leu
          340          345          350
Pro Ala Ile Gly His Cys Lys Ala Ile Tyr Pro Phe Asp Gly His Asn
          355          360          365
Glu Gly Thr Leu Ala Met Lys Glu Gly Glu Val Leu Tyr Ile Ile Glu
          370          375          380
Glu Asp Lys Gly Asp Gly Trp Thr Arg Ala Arg Arg Gln Asn Gly Glu
          385          390          395          400
Glu Gly Tyr Val Pro Thr Ser Tyr Ile Asp Val Thr Leu Glu Lys Asn
          405          410          415
Ser Lys Gly Ala Val Thr Tyr Ile *
          420          424

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<210> 1859
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 1859

```

Met Leu Glu Gln Ile Arg Asn Pro Ser Pro Cys Phe Lys Glu Val Ile
 1           5           10           15
His Lys His Phe Tyr Leu Lys Arg Val Glu Ile Met Ala Gln Cys Glu
           20           25           30
Glu Trp Ile Ala Asp Ile Gln Gln Tyr Ser Ser Asp Lys Arg Val Gly
           35           40           45
Arg Thr Met Ser His His Ala Ala Ala Leu Lys Arg His Thr Ala Gln
           50           55           60
Leu Arg Glu Glu Leu Leu Lys Leu Pro Cys Pro Glu Gly Leu Asp Pro
           65           70           75           80
Asp Thr Asp Asp Ala Pro Glu Val Cys Arg Ala Thr Thr Gly Ala Glu
           85           90           95
Glu Thr Leu Met His Asp Gln Val Lys Pro Ser Ser Ser Lys Glu Leu
           100           105           110
Pro Ser Asp Phe Gln Leu *
           115           118

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<210> 1860
<211> 724
<212> PRT
<213> Homo sapiens

```

```

<400> 1860
Met Glu Glu Glu Gly Leu Glu Cys Pro Asn Ser Ser Ser Glu Lys Arg
 1           5           10           15
Tyr Phe Pro Glu Ser Leu Asp Ser Ser Asp Gly Asp Glu Glu Glu Val
           20           25           30
Leu Ala Cys Glu Asp Leu Glu Leu Asn Pro Phe Asp Gly Leu Pro Tyr
           35           40           45
Ser Ser Arg Tyr Tyr Lys Leu Leu Lys Glu Arg Glu Asp Leu Pro Ile
           50           55           60
Trp Lys Glu Lys Tyr Ser Phe Met Glu Asn Leu Leu Gln Asn Gln Ile
           65           70           75           80
Val Ile Val Ser Gly Asp Ala Lys Cys Gly Lys Ser Ala Gln Val Pro
           85           90           95
Gln Trp Cys Ala Glu Tyr Cys Leu Ser Ile His Tyr Gln His Gly Gly
           100           105           110
Val Ile Cys Thr Gln Val His Lys Gln Thr Met Val Gln Leu Ala Leu
           115           120           125
Arg Val Ala Asp Glu Met Asp Val Asn Ile Gly His Glu Val Gly Tyr
           130           135           140
Val Ile Pro Phe Glu Asn Cys Cys Thr Asn Glu Thr Ile Leu Arg Tyr
           145           150           155           160
Cys Thr Asp Asp Met Leu Gln Arg Glu Met Met Ser Asn Pro Phe Leu
           165           170           175
Gly Ser Tyr Gly Val Ile Ile Leu Asp Asp Ile His Glu Arg Ser Ile
           180           185           190
Ala Thr Asp Val Leu Leu Gly Leu Leu Lys Asp Val Leu Leu Ala Arg
           195           200           205
Pro Glu Leu Lys Leu Ile Ile Asn Ser Ser Pro His Leu Ile Ser Lys
           210           215           220
Leu Asn Ser Tyr Tyr Gly Asn Val Pro Val Ile Glu Val Lys Asn Lys
           225           230           235           240
His Pro Val Glu Val Val Tyr Leu Ser Glu Ala Gln Lys Asp Ser Phe
           245           250           255
Glu Ser Ile Leu Arg Leu Ile Phe Glu Ile His His Ser Gly Glu Lys
           260           265           270
Gly Asp Ile Val Val Phe Leu Ala Cys Glu Gln Asp Ile Glu Lys Val
           275           280           285
Cys Glu Thr Val Tyr Gln Gly Ser Asn Leu Asn Pro Asp Leu Gly Glu
           290           295           300

```

Leu Val Val Val Pro Leu Tyr Pro Lys Glu Lys Cys Ser Leu Phe Lys
 305 310 315 320
 Pro Leu Asp Glu Thr Glu Lys Arg Cys Gln Val Tyr Gln Arg Arg Val
 325 330 335
 Val Leu Thr Thr Ser Ser Gly Glu Phe Leu Ile Trp Ser Asn Ser Val
 340 345 350
 Arg Phe Val Ile Asp Val Gly Val Glu Arg Arg Lys Val Tyr Asn Pro
 355 360 365
 Arg Ile Arg Ala Asn Ser Leu Val Met Gln Pro Ile Ser Gln Ser Gln
 370 375 380
 Ala Glu Ile Arg Lys Gln Ile Leu Gly Ser Ser Ser Ser Gly Lys Phe
 385 390 395 400
 Phe Cys Leu Tyr Thr Glu Glu Phe Ala Ser Lys Asp Met Thr Pro Leu
 405 410 415
 Lys Pro Ala Glu Met Gln Glu Ala Asn Leu Thr Ser Met Val Leu Phe
 420 425 430
 Met Lys Arg Ile Asp Ile Ala Gly Leu Gly His Cys Asp Phe Met Asn
 435 440 445
 Arg Pro Ala Pro Glu Ser Leu Met Gln Ala Leu Glu Asp Leu Asp Tyr
 450 455 460
 Leu Ala Ala Leu Asp Asn Asp Gly Asn Leu Ser Glu Phe Gly Ile Ile
 465 470 475 480
 Met Ser Glu Phe Pro Leu Asp Pro Gln Leu Ser Lys Ser Ile Leu Ala
 485 490 495
 Ser Cys Glu Phe Asp Cys Val Asp Glu Val Leu Thr Ile Ala Ala Met
 500 505 510
 Val Thr Ala Pro Asn Cys Phe Ser His Val Pro His Gly Ala Glu Glu
 515 520 525
 Ala Ala Leu Thr Cys Trp Lys Thr Phe Leu His Pro Glu Gly Asp His
 530 535 540
 Phe Thr Leu Ile Ser Ile Tyr Lys Ala Tyr Gln Asp Thr Thr Leu Asn
 545 550 555 560
 Ser Ser Ser Glu Tyr Cys Val Glu Lys Trp Cys Arg Asp Tyr Phe Leu
 565 570 575
 Asn Cys Ser Ala Leu Arg Met Ala Asp Val Ile Arg Ala Glu Leu Leu
 580 585 590
 Glu Ile Ile Lys Arg Ile Glu Leu Pro Tyr Ala Glu Pro Ala Phe Gly
 595 600 605
 Ser Lys Glu Asn Thr Leu Asn Ile Lys Lys Ala Leu Leu Ser Gly Tyr
 610 615 620
 Phe Met Gln Ile Ala Arg Asp Val Asp Gly Ser Gly Asn Tyr Leu Met
 625 630 635 640
 Leu Thr His Lys Gln Val Ala Gln Leu His Pro Leu Ser Gly Tyr Ser
 645 650 655
 Ile Thr Lys Lys Met Pro Glu Trp Val Leu Phe His Lys Phe Ser Ile
 660 665 670
 Ser Glu Asn Asn Tyr Ile Arg Ile Thr Ser Glu Ile Ser Pro Glu Leu
 675 680 685
 Phe Met Gln Leu Val Pro Gln Tyr Tyr Phe Ser Asn Leu Pro Pro Ser
 690 695 700
 Glu Ser Lys Asp Ile Leu Gln Gln Val Val Gly Ser Pro Ile Pro Cys
 705 710 715 720
 Val Asn Asn Glu
 724

<210> 1861
 <211> 1698
 <212> PRT
 <213> Homo sapiens

<400> 1861

Met	Met	Ala	Gln	Phe	Pro	Thr	Ala	Met	Asn	Gly	Gly	Pro	Asn	Met	Trp
1				5				10						15	
Ala	Ile	Thr	Ser	Glu	Glu	Arg	Thr	Lys	His	Asp	Arg	Gln	Phe	Asp	Asn
			20					25					30		
Leu	Lys	Pro	Ser	Gly	Gly	Tyr	Ile	Thr	Gly	Asp	Gln	Ala	Arg	Asn	Phe
			35				40					45			
Phe	Leu	Gln	Ser	Gly	Leu	Pro	Ala	Pro	Val	Leu	Ala	Glu	Ile	Trp	Ala
			50			55					60				
Leu	Ser	Asp	Leu	Asn	Lys	Asp	Gly	Lys	Met	Asp	Gln	Gln	Glu	Phe	Ser
65				70				75						80	
Ile	Ala	Met	Lys	Leu	Ile	Lys	Leu	Lys	Leu	Gln	Gly	Gln	Gln	Leu	Pro
			85					90						95	
Val	Val	Leu	Pro	Pro	Ile	Met	Lys	Gln	Pro	Pro	Met	Phe	Ser	Pro	Leu
			100					105					110		
Ile	Ser	Ala	Arg	Phe	Gly	Met	Gly	Ser	Met	Pro	Asn	Leu	Ser	Ile	Pro
			115				120					125			
Gln	Pro	Leu	Pro	Pro	Ala	Ala	Pro	Ile	Thr	Ser	Leu	Ser	Ser	Ala	Thr
			130			135					140				
Ser	Gly	Thr	Asn	Leu	Pro	Pro	Leu	Met	Met	Pro	Thr	Pro	Leu	Val	Pro
145				150						155				160	
Ser	Val	Ser	Thr	Ser	Ser	Leu	Pro	Asn	Gly	Thr	Ala	Ser	Leu	Ile	Gln
			165					170						175	
Pro	Leu	Pro	Ile	Pro	Tyr	Ser	Ser	Ser	Thr	Leu	Pro	His	Gly	Ser	Ser
			180					185					190		
Tyr	Ser	Leu	Met	Met	Gly	Gly	Phe	Gly	Gly	Ala	Ser	Ile	Gln	Lys	Ala
			195			200						205			
Gln	Ser	Leu	Ile	Asp	Leu	Gly	Ser	Ser	Ser	Ser	Thr	Ser	Ser	Thr	Ala
			210			215					220				
Ser	Leu	Ser	Gly	Asn	Ser	Pro	Lys	Thr	Gly	Thr	Ser	Glu	Trp	Ala	Val
225				230						235				240	
Pro	Gln	Pro	Thr	Arg	Leu	Lys	Tyr	Arg	Gln	Lys	Phe	Asn	Thr	Leu	Asp
			245					250						255	
Lys	Ser	Met	Ser	Gly	Tyr	Leu	Ser	Gly	Phe	Gln	Ala	Arg	Asn	Ala	Leu
			260					265						270	
Leu	Gln	Ser	Asn	Leu	Ser	Gln	Thr	Gln	Leu	Ala	Thr	Ile	Trp	Thr	Leu
			275			280						285			
Ala	Asp	Val	Asp	Gly	Asp	Gly	Gln	Leu	Lys	Ala	Glu	Glu	Phe	Ile	Leu
			290			295					300				
Ala	Met	His	Leu	Thr	Asp	Met	Ala	Lys	Ala	Gly	Gln	Pro	Leu	Pro	Leu
305				310						315				320	
Thr	Leu	Pro	Pro	Glu	Leu	Val	Pro	Pro	Ser	Phe	Arg	Gly	Gly	Lys	Gln
			325					330						335	
Ile	Asp	Ser	Ile	Asn	Gly	Thr	Leu	Pro	Ser	Tyr	Gln	Lys	Met	Gln	Glu
			340					345					350		
Glu	Glu	Pro	Gln	Lys	Lys	Leu	Pro	Val	Thr	Phe	Glu	Asp	Lys	Arg	Lys
			355			360						365			
Ala	Asn	Tyr	Glu	Arg	Gly	Asn	Met	Glu	Leu	Glu	Lys	Arg	Arg	Gln	Ala
			370			375					380				
Leu	Met	Glu	Gln	Gln	Gln	Arg	Glu	Ala	Glu	Arg	Lys	Ala	Gln	Lys	Glu
385				390						395				400	
Lys	Glu	Glu	Trp	Glu	Arg	Lys	Gln	Arg	Glu	Leu	Gln	Glu	Gln	Glu	Trp
			405					410						415	
Lys	Lys	Gln	Leu	Glu	Leu	Glu	Lys	Arg	Leu	Glu	Lys	Gln	Arg	Glu	Leu
			420					425					430		
Glu	Arg	Gln	Arg	Glu	Glu	Glu	Arg	Lys	Asp	Ile	Glu	Arg	Arg	Arg	Glu
			435			440					445				
Ala	Ala	Lys	Gln	Glu	Leu	Glu	Arg	Gln	Arg	Arg	Leu	Glu	Trp	Glu	Arg
			450			455					460				
Ile	Arg	Arg	Gln	Glu	Leu	Leu	Asn	Gln	Lys	Asn	Arg	Glu	Gln	Glu	Glu
465				470						475				480	
Ile	Val	Arg	Leu	Asn	Ser	Lys	Lys	Lys	Asn	Leu	His	Leu	Glu	Leu	Glu
			485						490					495	
Ala	Leu	Asn	Gly	Lys	His	Gln	Gln	Ile	Ser	Gly	Arg	Leu	Gln	Asp	Val
			500					505						510	

Arg Leu Lys Lys Gln Thr Gln Lys Thr Glu Leu Glu Val Leu Asp Lys
 515 520 525
 Gln Cys Asp Leu Glu Ile Met Glu Ile Lys Gln Leu Gln Gln Glu Leu
 530 535 540
 Gln Glu Tyr Gln Asn Lys Leu Ile Tyr Leu Val Pro Glu Lys Gln Leu
 545 550 555 560
 Leu Asn Glu Arg Ile Lys Asn Met Gln Phe Ser Asn Thr Pro Asp Ser
 565 570 575
 Gly Val Ser Leu Leu His Lys Lys Ser Leu Glu Lys Glu Glu Leu Cys
 580 585 590
 Gln Arg Leu Lys Glu Gln Leu Asp Ala Leu Glu Lys Glu Thr Ala Ser
 595 600 605
 Lys Leu Ser Glu Met Asp Ser Phe Asn Asn Gln Leu Lys Cys Gly Asn
 610 615 620
 Met Asp Asp Ser Val Leu Gln Cys Leu Leu Ser Leu Leu Ser Cys Leu
 625 630 635 640
 Asn Asn Leu Phe Leu Leu Leu Lys Glu Leu Arg Glu Thr Tyr Asn Thr
 645 650 655
 Gln Gln Leu Ala Leu Glu Gln Leu Tyr Lys Ile Lys Arg Asp Lys Leu
 660 665 670
 Lys Glu Ile Glu Arg Lys Arg Leu Glu Leu Met Gln Lys Lys Lys Leu
 675 680 685
 Glu Asp Glu Ala Ala Arg Lys Ala Lys Gln Gly Lys Glu Asn Leu Trp
 690 695 700
 Lys Glu Asn Leu Arg Lys Glu Glu Glu Glu Lys Gln Lys Arg Leu Gln
 705 710 715 720
 Glu Glu Lys Thr Gln Glu Lys Ile Gln Glu Glu Arg Lys Ala Glu
 725 730 735
 Glu Lys Gln Arg Lys Asp Lys Asp Thr Leu Lys Ala Glu Glu Lys Lys
 740 745 750
 Arg Glu Thr Ala Ser Val Leu Val Asn Tyr Arg Ala Leu Tyr Pro Phe
 755 760 765
 Glu Ala Arg Asn His Asp Glu Met Ser Phe Asn Ser Gly Asp Ile Ile
 770 775 780
 Gln Val Asp Glu Lys Thr Val Gly Glu Pro Gly Trp Leu Tyr Gly Ser
 785 790 795 800
 Phe Gln Gly Asn Phe Gly Trp Phe Pro Cys Asn Tyr Val Glu Lys Met
 805 810 815
 Pro Ser Ser Glu Asn Glu Lys Ala Val Ser Pro Lys Lys Ala Leu Leu
 820 825 830
 Pro Pro Thr Val Ser Leu Ser Ala Thr Ser Thr Ser Ser Glu Pro Leu
 835 840 845
 Ser Ser Asn Gln Pro Ala Ser Val Thr Asp Tyr Gln Asn Val Ser Phe
 850 855 860
 Ser Asn Leu Thr Val Asn Thr Ser Trp Gln Lys Lys Ser Ala Phe Thr
 865 870 875 880
 Arg Thr Val Ser Pro Gly Ser Val Ser Pro Ile His Gly Gln Gly Gln
 885 890 895
 Val Val Glu Asn Leu Lys Ala Gln Ala Leu Cys Ser Trp Thr Ala Lys
 900 905 910
 Lys Asp Asn His Leu Asn Phe Ser Lys His Asp Ile Ile Thr Val Leu
 915 920 925
 Glu Gln Gln Glu Asn Trp Trp Phe Gly Glu Val His Gly Gly Arg Gly
 930 935 940
 Trp Phe Pro Lys Ser Tyr Val Lys Ile Ile Pro Gly Ser Glu Val Lys
 945 950 955 960
 Arg Glu Glu Pro Glu Ala Leu Tyr Ala Ala Val Asn Lys Lys Pro Thr
 965 970 975
 Ser Ala Ala Tyr Ser Val Gly Glu Glu Tyr Ile Ala Leu Tyr Pro Tyr
 980 985 990
 Ser Ser Val Glu Pro Gly Asp Leu Thr Phe Thr Glu Gly Glu Glu Ile
 995 1000 1005
 Leu Val Thr Gln Lys Asp Gly Glu Trp Trp Thr Gly Ser Ile Gly Asp
 1010 1015 1020

Arg Ser Gly Ile Phe Pro Ser Asn Tyr Val Lys Pro Lys Asp Gln Glu
 1025 1030 1035 1040
 Ser Phe Gly Ser Ala Ser Lys Ser Gly Ala Ser Asn Lys Lys Pro Glu
 1045 1050 1055
 Ile Ala Gln Val Thr Ser Ala Tyr Val Ala Ser Gly Ser Glu Gln Leu
 1060 1065 1070
 Ser Leu Ala Pro Gly Gln Leu Ile Leu Ile Leu Lys Lys Asn Thr Ser
 1075 1080 1085
 Gly Trp Trp Gln Gly Glu Leu Gln Ala Arg Gly Lys Lys Arg Gln Lys
 1090 1095 1100
 Gly Trp Phe Pro Ala Ser His Val Lys Leu Leu Gly Pro Ser Ser Glu
 1105 1110 1115 1120
 Arg Ala Thr Pro Ala Phe His Pro Val Cys Gln Val Ile Ala Met Tyr
 1125 1130 1135
 Asp Tyr Ala Ala Asn Asn Glu Asp Glu Leu Ser Phe Ser Lys Gly Gln
 1140 1145 1150
 Leu Ile Asn Val Met Asn Lys Asp Asp Pro Asp Trp Trp Gln Gly Glu
 1155 1160 1165
 Ile Asn Gly Val Thr Gly Leu Phe Pro Ser Asn Tyr Val Lys Met Thr
 1170 1175 1180
 Thr Asp Ser Asp Pro Ser Gln Gln Trp Cys Ala Asp Leu Gln Thr Leu
 1185 1190 1195 1200
 Asp Thr Met Gln Pro Ile Glu Arg Lys Arg Gln Gly Tyr Ile His Glu
 1205 1210 1215
 Leu Ile Gln Thr Glu Glu Arg Tyr Met Ala Asp Leu Gln Leu Val Val
 1220 1225 1230
 Glu Val Phe Gln Lys Arg Met Ala Glu Ser Gly Phe Leu Thr Glu Gly
 1235 1240 1245
 Glu Met Ala Leu Ile Phe Val Asn Trp Lys Glu Leu Ile Met Ser Asn
 1250 1255 1260
 Thr Lys Leu Leu Lys Ala Leu Arg Val Arg Lys Lys Thr Gly Gly Glu
 1265 1270 1275 1280
 Lys Met Pro Val Gln Met Ile Gly Asp Ile Leu Ala Ala Glu Leu Ser
 1285 1290 1295
 His Met Gln Ala Tyr Ile Arg Phe Cys Ser Cys Gln Leu Asn Gly Ala
 1300 1305 1310
 Ala Leu Leu Gln Gln Lys Thr Asp Glu Asp Thr Asp Phe Lys Glu Phe
 1315 1320 1325
 Leu Lys Lys Leu Ala Ser Asp Pro Arg Cys Lys Gly Met Pro Leu Ser
 1330 1335 1340
 Ser Phe Leu Leu Lys Pro Met Gln Arg Ile Thr Arg Tyr Pro Leu Leu
 1345 1350 1355 1360
 Ile Arg Ser Ile Leu Glu Asn Thr Pro Glu Ser His Ala Asp His Ser
 1365 1370 1375
 Ser Leu Lys Leu Ala Leu Glu Arg Ala Glu Glu Leu Cys Ser Gln Val
 1380 1385 1390
 Asn Glu Gly Val Arg Glu Lys Glu Asn Ser Asp Arg Leu Glu Trp Ile
 1395 1400 1405
 Gln Ala His Val Gln Cys Glu Gly Leu Ala Glu Gln Leu Ile Phe Asn
 1410 1415 1420
 Ser Leu Thr Asn Cys Leu Gly Pro Arg Lys Leu Leu His Ser Gly Lys
 1425 1430 1435 1440
 Leu Tyr Lys Thr Lys Ser Asn Lys Glu Leu His Gly Phe Leu Phe Asn
 1445 1450 1455
 Asp Phe Leu Leu Thr Tyr Met Val Lys Gln Phe Ala Val Ser Ser
 1460 1465 1470
 Gly Ser Glu Lys Leu Phe Ser Ser Lys Ser Asn Ala Gln Phe Lys Met
 1475 1480 1485
 Tyr Lys Thr Pro Ile Phe Leu Asn Glu Val Leu Val Lys Leu Pro Thr
 1490 1495 1500
 Asp Pro Ser Ser Asp Glu Pro Val Phe His Ile Ser His Ile Asp Arg
 1505 1510 1515 1520
 Val Tyr Thr Leu Arg Thr Asp Asn Ile Asn Glu Arg Thr Thr Trp Val
 1525 1530 1535

Gln Lys Ile Lys Ala Ala Ser Glu Gln Tyr Ile Asp Thr Glu Lys Lys
 1540 1545 1550
 Lys Arg Glu Lys Ala Tyr Gln Ala Arg Ser Gln Lys Thr Ser Gly Ile
 1555 1560 1565
 Gly Arg Leu Met Val His Val Ile Glu Ala Thr Glu Leu Lys Ala Cys
 1570 1575 1580
 Lys Pro Asn Gly Lys Ser Asn Pro Tyr Cys Glu Ile Ser Met Gly Ser
 1585 1590 1595 1600
 Gln Ser Tyr Thr Thr Arg Thr Ile Gln Asp Thr Leu Asn Pro Lys Trp
 1605 1610 1615
 Asn Phe Asn Cys Gln Phe Phe Ile Lys Asp Leu Tyr Gln Asp Val Leu
 1620 1625 1630
 Cys Leu Thr Leu Phe Asp Arg Asp Gln Phe Ser Pro Asp Asp Phe Leu
 1635 1640 1645
 Gly Arg Thr Glu Ile Pro Val Ala Lys Ile Arg Thr Glu Gln Glu Ser
 1650 1655 1660
 Lys Gly Pro Met Thr Arg Arg Leu Leu Leu His Glu Val Pro Thr Gly
 1665 1670 1675 1680
 Glu Val Trp Val Arg Phe Asp Leu Gln Leu Phe Glu Gln Lys Thr Leu
 1685 1690 1695
 Leu *
 1697

<210> 1862
 <211> 446
 <212> PRT
 <213> Homo sapiens

<400> 1862
 Met Met Glu Glu Ser Gly Ile Glu Thr Thr Pro Pro Gly Thr Pro Pro
 1 5 10 15
 Pro Asn Pro Ala Gly Leu Ala Ala Thr Ala Met Ser Ser Thr Pro Val
 20 25 30
 Pro Leu Ala Ala Thr Ser Ser Phe Ser Ser Pro Asn Val Ser Ser Met
 35 40 45
 Glu Ser Phe Pro Pro Leu Ala Tyr Ser Thr Pro Gln Pro Pro Leu Pro
 50 55 60
 Pro Val Arg Pro Ser Ala Pro Leu Pro Phe Val Pro Pro Ala Val
 65 70 75 80
 Pro Ser Val Pro Pro Leu Val Thr Ser Met Pro Pro Pro Val Ser Pro
 85 90 95
 Ser Thr Ala Ala Ala Phe Gly Asn Pro Pro Val Ser His Phe Pro Pro
 100 105 110
 Ser Thr Ser Ala Pro Asn Thr Leu Leu Pro Ala Pro Pro Ser Gly Pro
 115 120 125
 Pro Ile Ser Gly Phe Ser Val Gly Ser Thr Tyr Asp Ile Thr Arg Gly
 130 135 140
 His Ala Gly Arg Ala Pro Gln Thr Pro Leu Met Pro Ser Phe Ser Ala
 145 150 155 160
 Pro Ser Gly Thr Gly Leu Leu Pro Thr Pro Ile Thr Gln Gln Ala Ser
 165 170 175
 Leu Thr Ser Leu Ala Gln Gly Thr Gly Thr Thr Ser Ala Ile Thr Phe
 180 185 190
 Pro Glu Glu Gln Glu Asp Pro Arg Ile Thr Arg Gly Gln Asp Glu Ala
 195 200 205
 Ser Ala Gly Gly Ile Trp Gly Phe Ile Lys Gly Val Ala Gly Asn Pro
 210 215 220
 Met Val Lys Ser Val Leu Asp Lys Thr Lys His Ser Val Glu Ser Met
 225 230 235 240
 Ile Thr Thr Leu Asp Pro Gly Met Ala Pro Tyr Ile Lys Ser Gly Gly
 245 250 255

Glu Leu Asp Ile Val Val Thr Ser Asn Lys Glu Val Lys Val Ala Ala
 260 265 270
 Val Arg Asp Ala Phe Gln Glu Val Phe Gly Leu Ala Val Val Val Gly
 275 280 285
 Glu Ala Gly Gln Ser Asn Ile Ala Pro Gln Pro Val Gly Tyr Ala Ala
 290 295 300
 Gly Leu Lys Gly Ala Gln Glu Arg Ile Asp Ser Leu Arg Arg Thr Gly
 305 310 315 320
 Val Ile His Glu Lys Gln Thr Ala Val Ser Val Glu Asn Phe Ile Ala
 325 330 335
 Glu Leu Leu Pro Asp Lys Trp Phe Asp Ile Gly Cys Leu Val Val Glu
 340 345 350
 Asp Pro Val His Gly Ile His Leu Glu Thr Phe Thr Gln Ala Thr Pro
 355 360 365
 Val Pro Leu Glu Phe Val Gln Gln Ala Gln Ser Leu Thr Pro Gln Asp
 370 375 380
 Tyr Asn Leu Arg Trp Ser Gly Leu Leu Val Thr Val Gly Glu Val Leu
 385 390 395 400
 Glu Lys Ser Leu Leu Asn Val Ser Arg Thr Asp Trp His Met Ala Phe
 405 410 415
 Thr Gly Met Ser Arg Arg Gln Met Ile Tyr Ser Ala Ala Arg Ala Ile
 420 425 430
 Ala Gly Met Tyr Lys Gln Arg Leu Pro Pro Arg Thr Val *
 435 440 445

<210> 1863

<211> 352

<212> PRT

<213> Homo sapiens

<400> 1863

Met Ala Leu Pro Phe Gln Lys Glu Leu Glu Lys Tyr Lys Asn Ile Asp
 1 5 10 15
 Glu Asp Glu Leu Leu Gly Lys Leu Ser Glu Glu Glu Leu Lys Gln Leu
 20 25 30
 Glu Asn Val Leu Asp Asp Leu Asp Pro Glu Ser Ala Met Leu Pro Ala
 35 40 45
 Gly Phe Arg Gln Lys Asp Gln Thr Gln Lys Ala Ala Thr Gly Pro Phe
 50 55 60
 Asp Arg Glu His Leu Leu Met Tyr Leu Glu Lys Glu Ala Leu Glu Gln
 65 70 75 80
 Lys Asp Arg Glu Asp Phe Val Pro Phe Thr Gly Glu Lys Lys Gly Arg
 85 90 95
 Val Phe Ile Pro Lys Glu Lys Pro Ile Glu Thr Arg Lys Glu Glu Lys
 100 105 110
 Val Thr Leu Asp Pro Glu Leu Glu Ala Leu Ala Ser Ala Ser Asp
 115 120 125
 Thr Glu Leu Tyr Asp Leu Ala Ala Val Leu Gly Val His Asn Leu Leu
 130 135 140
 Asn Asn Pro Lys Phe Asp Glu Glu Thr Ala Asn Asn Lys Gly Gly Lys
 145 150 155 160
 Gly Pro Val Arg Asn Val Val Lys Gly Glu Lys Val Lys Pro Val Phe
 165 170 175
 Glu Glu Pro Pro Asn Pro Thr Asn Val Glu Ile Ser Leu Gln Gln Met
 180 185 190
 Lys Ala Asn Asp Pro Ser Leu Gln Glu Val Asn Leu Asn Asn Ile Lys
 195 200 205
 Asn Ile Pro Ile Pro Thr Leu Arg Glu Phe Ala Lys Ala Leu Glu Thr
 210 215 220
 Asn Thr His Val Lys Lys Phe Ser Leu Ala Ala Thr Arg Ser Asn Asp
 225 230 235 240

```

Pro Val Ala Ile Ala Phe Ala Asp Met Leu Lys Val Asn Lys Thr Leu
      245                250                255
Thr Ser Leu Asn Ile Glu Ser Asn Phe Ile Thr Gly Thr Gly Ile Leu
      260                265                270
Ala Leu Val Glu Ala Leu Lys Glu Asn Asp Thr Leu Thr Glu Ile Lys
      275                280                285
Ile Asp Asn Gln Arg Gln Gln Leu Gly Thr Ala Val Glu Met Glu Ile
      290                295                300
Ala Gln Met Leu Glu Glu Asn Ser Arg Ile Leu Lys Phe Gly Tyr Gln
      305                310                315                320
Phe Thr Lys Gln Gly Pro Arg Thr Arg Val Ala Ala Ala Ile Thr Lys
      325                330                335
Asn Asn Asp Leu Val Arg Lys Lys Arg Val Glu Ala Asp Arg Arg *
      340                345                350 351

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<210> 1864
<211> 205
<212> PRT
<213> Homo sapiens

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```

<400> 1864
Met Asp Val Ala Glu Ser Pro Glu Arg Asp Pro His Ser Pro Glu Asp
 1      5      10      15
Glu Glu Gln Pro Gln Gly Leu Ser Asp Asp Ile Leu Arg Asp Ser
      20      25      30
Gly Ser Asp Gln Asp Leu Asp Gly Ala Gly Val Arg Ala Ser Asp Leu
      35      40      45
Glu Asp Glu Glu Ser Ala Ala Arg Gly Pro Ser Gln Glu Glu Glu Asp
      50      55      60
Asn His Ser Asp Glu Glu Asp Arg Ala Ser Glu Pro Lys Ser Gln Asp
      65      70      75      80
Gln Asp Ser Glu Val Asn Glu Leu Ser Arg Gly Pro Thr Ser Ser Pro
      85      90      95
Cys Glu Glu Glu Gly Asp Glu Gly Glu Glu Asp Arg Thr Ser Asp Leu
      100     105     110
Arg Asp Glu Ala Ser Ser Val Thr Arg Glu Leu Asp Glu His Glu Leu
      115     120     125
Asp Tyr Asp Glu Glu Val Pro Glu Glu Pro Ala Pro Ala Val Gln Glu
      130     135     140
Asp Glu Ala Glu Lys Ala Gly Ala Glu Asp Asp Glu Glu Lys Gly Glu
      145     150     155     160
Gly Thr Pro Arg Glu Glu Gly Lys Ala Gly Val Gln Ser Val Gly Glu
      165     170     175
Lys Glu Ser Leu Glu Ala Ala Lys Glu Lys Lys Lys Glu Asp Asp Asp
      180     185     190
Gly Glu Ile Glu Phe Ser Ser Ser Arg Arg Pro Leu *
      195     200     204

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<210> 1865
<211> 510
<212> PRT
<213> Homo sapiens

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```

<400> 1865
Met Asn Glu Asn Lys Asp Thr Asp Ser Lys Lys Ser Glu Glu Tyr Glu
 1      5      10      15
Asp Asp Phe Glu Lys Asp Leu Glu Trp Leu Ile Asn Glu Asn Glu Lys
      20      25      30

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Ser	Asp	Ala	Ser	Ile	Ile	Glu	Met	Ala	Cys	Glu	Lys	Glu	Glu	Asn	Ile
	35						40					45			
Asn	Gln	Asp	Leu	Lys	Glu	Asn	Glu	Thr	Val	Met	Glu	His	Thr	Lys	Arg
	50					55					60				
His	Ser	Asp	Pro	Asp	Lys	Ser	Leu	Gln	Asp	Glu	Val	Ser	Pro	Arg	Arg
	65				70					75				80	
Asn	Asp	Ile	Ile	Ser	Val	Pro	Gly	Ile	Gln	Pro	Leu	Asp	Pro	Ile	Ser
				85					90					95	
Asp	Ser	Asp	Ser	Glu	Asn	Ser	Phe	Gln	Glu	Ser	Lys	Leu	Glu	Ser	Gln
			100				105					110			
Lys	Asp	Leu	Glu	Glu	Glu	Glu	Asp	Glu	Glu	Val	Arg	Arg	Tyr	Ile	Met
	115						120					125			
Glu	Lys	Ile	Val	Gln	Ala	Asn	Lys	Leu	Leu	Gln	Asn	Gln	Glu	Pro	Val
	130					135					140				
Asn	Asp	Lys	Arg	Glu	Arg	Lys	Leu	Lys	Phe	Lys	Asp	Gln	Leu	Val	Asp
	145				150					155				160	
Leu	Glu	Val	Pro	Pro	Leu	Glu	Asp	Thr	Thr	Thr	Phe	Lys	Asn	Tyr	Phe
				165					170					175	
Glu	Asn	Glu	Arg	Asn	Met	Phe	Gly	Lys	Leu	Ser	Gln	Leu	Cys	Ile	Ser
			180				185					190			
Asn	Asp	Phe	Gly	Gln	Glu	Asp	Val	Leu	Leu	Ser	Leu	Thr	Asn	Gly	Ser
	195					200						205			
Cys	Glu	Glu	Asn	Lys	Asp	Arg	Thr	Ile	Leu	Val	Glu	Arg	Asp	Gly	Lys
	210					215					220				
Phe	Glu	Leu	Leu	Asn	Leu	Gln	Asp	Ile	Ala	Ser	Gln	Gly	Phe	Leu	Pro
	225				230					235				240	
Pro	Ile	Asn	Asn	Ala	Asn	Ser	Thr	Glu	Asn	Asp	Pro	Gln	Gln	Leu	Leu
			245						250					255	
Pro	Arg	Ser	Ser	Asn	Ser	Ser	Val	Ser	Gly	Thr	Lys	Lys	Glu	Asp	Ser
		260					265						270		
Thr	Ala	Lys	Ile	His	Ala	Val	Thr	His	Ser	Ser	Thr	Gly	Glu	Pro	Leu
	275						280					285			
Ala	Tyr	Ile	Ala	Gln	Pro	Pro	Leu	Asn	Arg	Lys	Thr	Cys	Pro	Ser	Ser
	290					295					300				
Ala	Val	Asn	Ser	Asp	Arg	Ser	Lys	Gly	Asn	Gly	Lys	Ser	Asn	His	Arg
	305				310				315					320	
Thr	Gln	Ser	Ala	His	Ile	Ser	Pro	Val	Thr	Ser	Thr	Tyr	Cys	Leu	Ser
			325						330					335	
Pro	Arg	Gln	Lys	Glu	Leu	Gln	Lys	Gln	Leu	Glu	Glu	Lys	Arg	Glu	Lys
		340					345						350		
Leu	Lys	Arg	Glu	Glu	Glu	Arg	Arg	Lys	Ile	Glu	Glu	Glu	Lys	Glu	Lys
	355					360						365			
Lys	Arg	Glu	Asn	Asp	Ile	Val	Phe	Lys	Ala	Trp	Leu	Gln	Lys	Lys	Arg
	370					375					380				
Glu	Gln	Val	Leu	Glu	Met	Arg	Arg	Ile	Gln	Arg	Ala	Lys	Glu	Ile	Glu
	385				390					395				400	
Asp	Met	Asn	Ser	Arg	Gln	Glu	Asn	Arg	Asp	Pro	Gln	Gln	Ala	Phe	Arg
			405						410					415	
Leu	Trp	Leu	Lys	Lys	His	Glu	Glu	Gln	Met	Lys	Glu	Arg	Gln	Thr	
		420					425					430			
Glu	Glu	Leu	Arg	Lys	Gln	Glu	Glu	Cys	Leu	Phe	Phe	Leu	Lys	Gly	Thr
	435						440					445			
Glu	Gly	Arg	Glu	Arg	Ala	Phe	Lys	Gln	Trp	Leu	Arg	Arg	Lys	Arg	Met
	450					455					460				
Glu	Lys	Met	Ala	Glu	Gln	Gln	Ala	Val	Arg	Glu	Arg	Thr	Arg	Gln	Leu
	465				470					475				480	
Arg	Leu	Glu	Ala	Lys	Arg	Ser	Lys	Gln	Leu	Gln	His	His	Leu	Tyr	Met
			485						490					495	
Ser	Glu	Ala	Lys	Pro	Phe	Arg	Phe	Thr	Asp	His	Tyr	Asn	*		
		500						505				509			

<211> 80
 <212> PRT
 <213> Homo sapiens

<400> 1866
 Met Ser Lys Asp Leu Val Thr Phe Gly Asp Val Ala Val Asn Phe Ser
 1 5 10 15
 Gln Glu Glu Trp Glu Trp Leu Asn Pro Ala Gln Arg Asn Leu Tyr Arg
 20 25 30
 Lys Val Met Leu Glu Asn Tyr Arg Ser Leu Val Ser Leu Gly Val Ser
 35 40 45
 Val Ser Lys Pro Asp Val Ile Ser Leu Leu Glu Gln Gly Lys Glu Pro
 50 55 60
 Trp Met Val Lys Lys Glu Gly Thr Arg Gly Pro Cys Pro Gly Glu *
 65 70 75 79

<210> 1867
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 1867
 Met Ala Val Ala Ser Asp Phe Tyr Leu Arg Tyr Tyr Val Gly His Lys
 1 5 10 15
 Gly Lys Phe Gly His Glu Phe Leu Glu Phe Glu Phe Arg Pro Asp Gly
 20 25 30
 Glu Lys Arg Pro Thr Ala Arg Gly Ala Gly Lys Gly Glu Arg Asp Arg
 35 40 45
 Glu Ala Gly Trp Cys Gly Gly Tyr Arg Arg Arg Arg Pro Leu Leu Pro
 50 55 60
 Ser Lys Glu Ile Gly Ala *
 65 70

<210> 1868
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 1868
 Met Gln Pro Leu Thr Lys Asp Ala Gly Met Ser Leu Ser Ser Val Thr
 1 5 10 15
 Leu Ala Ser Ala Leu Gln Val Arg Gly Glu Ala Leu Ser Glu Glu Glu
 20 25 30
 Ile Trp Ser Leu Leu Phe Leu Ala Ala Glu Gln Leu Leu Glu Asp Leu
 35 40 45
 Arg Asn Asp Ser Ser Asp Tyr Val Val Cys Pro Trp Ser Ala Leu Leu
 50 55 60
 Ser Ala Ala Gly Ser Leu Ser Phe Gln Gly Arg Val Ser His Ile Glu
 65 70 75 80
 Ala Ala Pro Phe Lys Ala Pro Glu Leu Leu Gln Gly Gln Ser Glu Asp
 85 90 95
 Glu Gln Pro Asp Ala Ser Gln Met His Val Tyr Ser Leu Gly Met Thr
 100 105 110
 Leu Tyr Trp Ser Ala Gly Phe His Val Pro Pro His Gln Pro Leu Gln
 115 120 125
 Leu Cys Glu Pro Leu His Ser Ile Leu Leu Thr Met Cys Glu Asp Gln
 130 135 140

Pro His Arg Arg Cys Thr Leu Gln Ser Val Leu Glu Ala Cys Arg Val
 145 150 155 160
 His Glu Lys Glu Val Ser Val Tyr Pro Ala Pro Ala Gly Leu His Ile
 165 170 175
 Arg Arg Leu Val Gly Leu Val Leu Gly Thr Ile Ser Glu Val Ser Arg
 180 185 190
 Glu Pro Cys Phe Ser Ser Ser Ser Cys Trp Ser Cys Val Ala Ile Lys
 195 200 205
 Ile *
 209

<210> 1869
 <211> 439
 <212> PRT
 <213> Homo sapiens

<400> 1869
 Met Ser Leu Val Asp Leu Gly Lys Arg Leu Leu Glu Ala Ala Arg Lys
 1 5 10 15
 Gly Gln Asp Asp Glu Val Arg Thr Leu Met Ala Asn Gly Ala Pro Phe
 20 25 30
 Thr Thr Asp Trp Phe Ser Lys Leu Arg Val Ser Cys Gly Tyr Ile Gly
 35 40 45
 Asp Asn Cys Lys Asn Gly Ala Asp Val Asn Ala Lys Asp Met Leu Lys
 50 55 60
 Met Thr Ala Leu His Trp Ala Thr Glu Arg His His Arg Asp Val Val
 65 70 75 80
 Glu Leu Leu Ile Lys Tyr Gly Ala Asp Val His Ala Phe Ser Lys Phe
 85 90 95
 Asp Lys Ser Ala Phe Asp Ile Ala Leu Glu Lys Asn Asn Ala Glu Ile
 100 105 110
 Leu Val Ile Leu Gln Glu Ala Met Gln Asn Gln Val Asn Val Asn Pro
 115 120 125
 Glu Arg Ala Asn Pro Val Thr Asp Pro Val Ser Met Ala Ala Pro Phe
 130 135 140
 Ile Phe Thr Ser Gly Glu Val Val Asn Leu Ala Ser Leu Ile Ser Ser
 145 150 155 160
 Thr Asn Thr Lys Thr Thr Ser Gly Asp Pro His Ala Ser Thr Val Gln
 165 170 175
 Phe Ser Asn Ser Thr Thr Ser Val Leu Ala Thr Leu Ala Ala Leu Ala
 180 185 190
 Glu Ala Ser Val Pro Leu Ser Asn Ser His Arg Ala Thr Ala Asn Thr
 195 200 205
 Glu Glu Ile Ile Glu Gly Asn Ser Val Asp Ser Ser Ile Gln Gln Val
 210 215 220
 Met Gly Ser Gly Gly Gln Arg Val Ile Thr Ile Val Thr Asp Gly Val
 225 230 235 240
 Pro Leu Gly Asn Ile Gln Thr Ser Ile Pro Thr Gly Gly Ile Gly Gln
 245 250 255
 Pro Phe Ile Val Thr Val Gln Asp Gly Gln Gln Val Leu Thr Val Pro
 260 265 270
 Ala Gly Lys Gly Ala Glu Glu Thr Val Ile Lys Glu Glu Glu Glu
 275 280 285
 Lys Leu Pro Leu Thr Lys Lys Pro Arg Ile Gly Glu Lys Thr Asn Ser
 290 295 300
 Val Glu Glu Ser Lys Glu Gly Asn Glu Arg Glu Leu Leu Gln Gln Gln
 305 310 315 320
 Leu Gln Glu Ala Asn Arg Arg Ala Gln Glu Tyr Arg His Gln Leu Leu
 325 330 335
 Lys Lys Glu Gln Glu Ala Glu Gln Tyr Arg Leu Lys Leu Glu Ala Ile
 340 345 350

Ala Arg Gln Gln Pro Asn Gly Val Asp Phe Thr Met Val Glu Glu Val
 355 360 365
 Ala Glu Val Asp Ala Val Val Val Thr Glu Gly Glu Leu Glu Glu Arg
 370 375 380
 Glu Thr Lys Val Thr Gly Ser Ala Gly Ala Thr Glu Pro His Thr Arg
 385 390 395 400
 Gly Phe His Gly Asn Cys Phe Ile Leu Ile Cys Lys Gly His Asn Leu
 405 410 415
 His Cys Val His Ile Asn Pro Leu Leu Lys Lys Glu Ile Tyr Arg Arg
 420 425 430
 Gln Thr Leu Tyr Lys Asn *
 435 438

<210> 1870
 <211> 445
 <212> PRT
 <213> Homo sapiens

<400> 1870
 Met Ile Glu Asp Asn Lys Glu Asn Lys Asp His Ser Leu Glu Arg Gly
 1 5 10 15
 Arg Ala Ser Leu Ile Phe Ser Leu Lys Asn Glu Val Gly Gly Leu Ile
 20 25 30
 Lys Ala Leu Lys Ile Phe Gln Glu Lys His Val Asn Leu Leu His Ile
 35 40 45
 Glu Ser Arg Lys Ser Lys Arg Arg Asn Ser Glu Phe Glu Ile Phe Val
 50 55 60
 Asp Cys Asp Ile Asn Arg Glu Gln Leu Asn Asp Ile Phe His Leu Leu
 65 70 75 80
 Lys Ser His Thr Asn Val Leu Ser Val Asn Leu Pro Asp Asn Phe Thr
 85 90 95
 Leu Lys Glu Asp Gly Met Glu Thr Val Pro Trp Phe Pro Lys Lys Ile
 100 105 110
 Ser Asp Leu Asp His Cys Ala Asn Arg Val Leu Met Tyr Gly Ser Glu
 115 120 125
 Leu Asp Ala Asp His Pro Gly Phe Lys Asp Asn Val Tyr Arg Lys Arg
 130 135 140
 Arg Lys Tyr Phe Ala Asp Leu Ala Met Asn Tyr Lys His Gly Asp Pro
 145 150 155 160
 Ile Pro Lys Val Glu Phe Thr Glu Glu Glu Ile Lys Thr Trp Gly Thr
 165 170 175
 Val Phe Gln Glu Leu Asn Lys Leu Tyr Pro Thr His Ala Cys Arg Glu
 180 185 190
 Tyr Leu Lys Asn Leu Pro Leu Leu Ser Lys Tyr Cys Gly Tyr Arg Glu
 195 200 205
 Asp Asn Ile Pro Gln Leu Glu Asp Val Ser Asn Phe Leu Lys Glu Arg
 210 215 220
 Thr Gly Phe Ser Ile Arg Pro Val Ala Gly Tyr Leu Ser Pro Arg Asp
 225 230 235 240
 Phe Leu Ser Gly Leu Ala Phe Arg Val Phe His Cys Thr Gln Tyr Val
 245 250 255
 Arg His Ser Ser Asp Pro Phe Tyr Thr Pro Glu Pro Asp Thr Cys His
 260 265 270
 Glu Leu Leu Gly His Val Pro Leu Leu Ala Glu Pro Ser Phe Ala Gln
 275 280 285
 Phe Ser Gln Glu Ile Gly Leu Ala Ser Leu Gly Ala Ser Glu Glu Ala
 290 295 300
 Val Gln Lys Leu Ala Thr Cys Tyr Phe Phe Thr Val Glu Phe Gly Leu
 305 310 315 320
 Cys Lys Gln Asp Gly Gln Leu Arg Val Phe Gly Ala Gly Leu Leu Ser
 325 330 335

```

Ser Ile Ser Glu Leu Lys His Val Leu Ser Gly His Ala Lys Val Lys
      340      345      350
Pro Phe Asp Pro Lys Ile Thr Cys Lys Gln Glu Cys Leu Ile Thr Thr
      355      360      365
Phe Gln Asp Val Tyr Phe Val Ser Glu Ser Phe Glu Asp Ala Lys Glu
      370      375      380
Lys Met Arg Glu Phe Thr Lys Thr Ile Lys Arg Pro Phe Gly Val Lys
      385      390      395      400
Tyr Asn Pro Tyr Thr Arg Ser Ile Gln Ile Leu Lys Asp Ala Lys Ser
      405      410      415
Ile Thr Asn Ala Met Asn Glu Leu Arg His Asp Leu Asp Val Val Ser
      420      425      430
Asp Ala Leu Gly Lys Val Ser Arg Lys Pro Ser Ile *
      435      440      444

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<210> 1871
 <211> 859
 <212> PRT
 <213> Homo sapiens

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      <400> 1871
Met Val Asn Phe Thr Val Asp Gln Ile Arg Ala Ile Met Asp Lys Lys
  1      5      10      15
Ala Asn Ile Arg Asn Met Ser Val Ile Ala His Val Asp His Gly Lys
      20      25      30
Ser Thr Leu Thr Asp Ser Leu Val Cys Lys Ala Gly Ile Ile Ala Ser
      35      40      45
Ala Arg Ala Gly Glu Thr Arg Phe Thr Asp Thr Arg Lys Asp Glu Gln
      50      55      60
Glu Arg Cys Ile Thr Ile Lys Ser Thr Ala Ile Ser Leu Phe Tyr Glu
      65      70      75      80
Leu Ser Glu Asn Asp Leu Asn Phe Ile Lys Gln Ser Lys Asp Gly Ala
      85      90      95
Gly Phe Leu Ile Asn Leu Ile Asp Ser Pro Gly His Val Asp Phe Ser
      100      105      110
Ser Glu Val Thr Ala Ala Leu Arg Val Thr Asp Gly Ala Leu Val Val
      115      120      125
Val Asp Cys Val Ser Gly Val Cys Val Gln Thr Glu Thr Val Leu Arg
      130      135      140
Gln Ala Ile Ala Glu Arg Ile Lys Pro Val Leu Met Met Asn Lys Met
      145      150      155      160
Asp Arg Ala Leu Leu Glu Leu Gln Leu Glu Pro Glu Glu Leu Tyr Gln
      165      170      175
Thr Phe Gln Arg Ile Val Glu Asn Val Asn Val Ile Ile Ser Thr Tyr
      180      185      190
Gly Glu Gly Glu Ser Gly Pro Met Gly Asn Ile Met Ile Asp Pro Val
      195      200      205
Leu Gly Thr Val Gly Phe Gly Ser Gly Leu His Gly Trp Ala Phe Thr
      210      215      220
Leu Lys Gln Phe Ala Glu Met Tyr Val Ala Lys Phe Ala Ala Lys Gly
      225      230      235      240
Glu Gly Gln Leu Gly Pro Ala Glu Arg Ala Lys Lys Val Glu Asp Met
      245      250      255
Met Lys Lys Leu Trp Gly Asp Arg Tyr Phe Asp Pro Ala Asn Gly Lys
      260      265      270
Phe Ser Lys Ser Ala Thr Ser Pro Glu Gly Lys Lys Leu Pro Arg Thr
      275      280      285
Phe Cys Gln Leu Ile Leu Asp Pro Ile Phe Lys Val Phe Asp Ala Ile
      290      295      300
Met Asn Phe Lys Lys Glu Glu Thr Ala Lys Leu Ile Glu Lys Leu Asp
      305      310      315      320

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Ile Lys Leu Asp Ser Glu Asp Lys Asp Lys Glu Gly Lys Pro Leu Leu
      325                      330                      335
Lys Ala Val Met Arg Arg Trp Leu Pro Ala Gly Asp Ala Leu Leu Gln
      340                      345                      350
Met Ile Thr Ile His Leu Pro Ser Pro Val Thr Ala Gln Lys Tyr Arg
      355                      360                      365
Cys Glu Leu Leu Tyr Glu Gly Pro Pro Asp Asp Glu Ala Ala Met Gly
      370                      375                      380
Ile Lys Ser Cys Asp Pro Lys Gly Pro Leu Met Met Tyr Ile Ser Lys
385                      390                      395                      400
Met Val Pro Thr Ser Asp Lys Gly Arg Phe Tyr Ala Phe Gly Arg Val
      405                      410                      415
Phe Ser Gly Leu Val Ser Thr Gly Leu Lys Val Arg Ile Met Gly Pro
      420                      425                      430
Asn Tyr Thr Pro Gly Lys Lys Glu Asp Leu Tyr Leu Lys Pro Ile Gln
      435                      440                      445
Arg Thr Ile Leu Met Met Gly Arg Tyr Val Glu Pro Ile Glu Asp Val
      450                      455                      460
Pro Cys Gly Asn Ile Val Gly Leu Val Gly Val Asp Gln Phe Leu Val
465                      470                      475                      480
Lys Thr Gly Thr Ile Thr Thr Phe Glu His Ala His Asn Met Arg Val
      485                      490                      495
Met Lys Phe Ser Val Ser Pro Val Val Arg Val Ala Val Glu Ala Lys
      500                      505                      510
Asn Pro Ala Asp Leu Pro Lys Leu Val Glu Gly Leu Lys Arg Leu Ala
      515                      520                      525
Lys Ser Asp Pro Met Val Gln Cys Ile Ile Glu Glu Ser Gly Glu His
      530                      535                      540
Ile Ile Ala Gly Ala Gly Glu Leu His Leu Glu Ile Cys Leu Lys Asp
545                      550                      555                      560
Leu Glu Glu Asp His Ala Cys Ile Pro Ile Lys Lys Ser Asp Pro Val
      565                      570                      575
Val Ser Tyr Arg Glu Thr Val Ser Glu Glu Ser Asn Val Leu Cys Leu
      580                      585                      590
Ser Lys Ser Pro Asn Lys His Asn Arg Leu Tyr Met Lys Ala Arg Pro
      595                      600                      605
Phe Pro Asp Gly Leu Ala Glu Asp Ile Asp Lys Gly Glu Val Ser Ala
      610                      615                      620
Arg Gln Glu Leu Lys Gln Arg Ala Arg Tyr Leu Ala Glu Lys Tyr Glu
625                      630                      635                      640
Trp Asp Val Ala Glu Ala Arg Lys Ile Trp Cys Phe Gly Pro Asp Gly
      645                      650                      655
Thr Gly Pro Asn Ile Leu Thr Asp Ile Thr Lys Gly Val Gln Tyr Leu
      660                      665                      670
Asn Glu Ile Lys Asp Ser Val Val Ala Gly Phe Gln Trp Ala Thr Lys
      675                      680                      685
Glu Gly Ala Leu Cys Glu Glu Asn Met Arg Gly Val Arg Phe Asp Val
      690                      695                      700
His Asp Val Thr Leu His Ala Asp Ala Ile His Arg Gly Gly Gly Gln
705                      710                      715                      720
Ile Ile Pro Thr Ala Arg Arg Cys Leu Tyr Ala Ser Val Leu Thr Ala
      725                      730                      735
Gln Pro Arg Leu Met Glu Pro Ile Tyr Leu Val Glu Ile Gln Cys Pro
      740                      745                      750
Glu Gln Val Val Gly Gly Ile Tyr Gly Val Leu Asn Arg Lys Arg Gly
      755                      760                      765
His Val Phe Glu Glu Ser Gln Val Ala Gly Thr Pro Met Phe Val Val
      770                      775                      780
Lys Ala Tyr Leu Pro Val Asn Glu Ser Phe Gly Phe Thr Ala Asp Leu
785                      790                      795                      800
Arg Ser Asn Thr Gly Gly Gln Ala Phe Pro Gln Cys Val Phe Asp His
      805                      810                      815
Trp Gln Ile Leu Pro Gly Asp Pro Phe Asp Asn Ser Ser Arg Pro Ser
      820                      825                      830

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Gln Val Val Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile
 835 840 845
 Pro Ala Leu Asp Asn Phe Leu Asp Lys Leu *
 850 855 858

<210> 1872
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 1872
 Met Ala Ser Lys Ile Leu Leu Asn Val Gln Glu Glu Val Thr Cys Pro
 1 5 10 15
 Ile Cys Leu Glu Leu Leu Thr Glu Pro Leu Ser Leu Asp Cys Gly His
 20 25 30
 Ser Leu Cys Arg Ala Cys Ile Thr Val Ser Asn Lys Glu Ala Val Thr
 35 40 45
 Ser Met Gly Gly Lys Ser Ser Cys Pro Val Cys Gly Ile Ser Tyr Ser
 50 55 60
 Phe Glu His Leu Gln Ala Asn Gln His Leu Ala Asn Ile Val Glu Arg
 65 70 75 80
 Leu Lys Glu Val Lys Leu Ser Pro Asp Asn Gly Lys Lys Arg Asp Leu
 85 90 95
 Cys Asp His His Gly Glu Lys Leu Leu Phe Cys Lys Glu Asp Arg
 100 105 110
 Lys Val Ile Cys Trp Leu Cys Glu Arg Ser Gln Glu His Arg Gly His
 115 120 125
 His Thr Val Leu Thr Glu Glu Val Phe Lys Glu Cys Gln Glu Lys Leu
 130 135 140
 Gln Ala Val Leu Lys Arg Leu Lys Lys Glu Glu Glu Ala Glu Lys
 145 150 155 160
 Leu Glu Ala Asp Ile Arg Glu Glu Lys Thr Ser Trp Lys Tyr Gln Val
 165 170 175
 Gln Thr Glu Arg Gln Arg Ile Gln Thr Glu Phe Asp Gln Leu Arg Ser
 180 185 190
 Ile Leu Asn Asn Glu Glu Gln Arg Glu Leu Gln Arg Leu Glu Lys Lys
 195 200 205
 Lys Lys Lys Ile Phe Asn *
 210 214

<210> 1873
 <211> 611
 <212> PRT
 <213> Homo sapiens

<400> 1873
 Met Asp Ser Val Ala Phe Glu Asp Val Ala Val Asn Phe Thr Gln Glu
 1 5 10 15
 Glu Trp Ala Leu Leu Gly Pro Ser Gln Lys Ser Leu Tyr Arg Asn Val
 20 25 30
 Met Gln Glu Thr Ile Arg Asn Leu Asp Cys Ile Glu Met Lys Trp Glu
 35 40 45
 Asp Gln Asn Ile Gly Asp Gln Cys Gln Asn Ala Lys Arg Asn Leu Arg
 50 55 60
 Ser His Thr Cys Glu Ile Lys Asp Asp Ser Gln Cys Gly Glu Thr Phe
 65 70 75 80
 Gly Gln Ile Pro Asp Ser Ile Val Asn Lys Asn Thr Pro Arg Val Asn
 85 90 95

Pro	Cys	Asp	Ser	Gly	Glu	Cys	Gly	Glu	Val	Val	Leu	Gly	His	Ser	Ser		
			100					105					110				
Leu	Asn	Cys	Asn	Ile	Arg	Val	Asp	Thr	Gly	His	Lys	Ser	Cys	Glu	His		
	115						120					125					
Gln	Glu	Tyr	Gly	Glu	Lys	Pro	Tyr	Thr	His	Lys	Gln	Arg	Gly	Lys	Ala		
	130					135					140						
Ile	Ser	His	Gln	His	Ser	Phe	Gln	Thr	His	Glu	Arg	Pro	Pro	Thr	Gly		
145				150						155					160		
Lys	Lys	Pro	Phe	Asp	Cys	Lys	Glu	Cys	Ala	Lys	Thr	Phe	Ser	Ser	Leu		
			165						170					175			
Gly	Asn	Leu	Arg	Arg	His	Met	Ala	Ala	His	His	Gly	Asp	Gly	Pro	Tyr		
		180						185					190				
Lys	Cys	Lys	Leu	Cys	Gly	Lys	Ala	Phe	Val	Trp	Pro	Ser	Leu	Phe	His		
	195					200					205						
Leu	His	Glu	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Gln		
	210				215						220						
Cys	Ser	Lys	Ala	Phe	Pro	Phe	Tyr	Ser	Ser	Tyr	Leu	Arg	His	Glu	Arg		
225					230					235				240			
Ile	His	Thr	Gly	Glu	Lys	Ala	Tyr	Glu	Cys	Lys	Gln	Cys	Ser	Lys	Ala		
			245						250					255			
Phe	Pro	Asp	Tyr	Ser	Thr	Tyr	Leu	Arg	His	Glu	Arg	Thr	His	Thr	Gly		
		260						265					270				
Glu	Lys	Pro	Tyr	Lys	Cys	Thr	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Cys	Tyr		
	275						280					285					
Tyr	Tyr	Thr	Arg	Leu	His	Glu	Arg	Thr	His	Thr	Gly	Glu	Gln	Pro	Tyr		
	290				295						300						
Ala	Cys	Lys	Gln	Cys	Gly	Lys	Thr	Phe	Tyr	His	His	Thr	Ser	Phe	Arg		
305					310					315					320		
Arg	His	Met	Ile	Arg	His	Thr	Gly	Asp	Gly	Pro	His	Lys	Cys	Lys	Ile		
			325					330						335			
Cys	Gly	Lys	Gly	Phe	Asp	Cys	Pro	Ser	Ser	Val	Arg	Asn	His	Glu	Thr		
		340						345				350					
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Gln	Cys	Gly	Lys	Val		
	355					360						365					
Leu	Ser	His	Ser	Ser	Ser	Phe	Arg	Ser	His	Met	Ile	Thr	His	Thr	Gly		
	370					375					380						
Asp	Gly	Pro	Gln	Lys	Cys	Lys	Ile	Cys	Gly	Lys	Ala	Phe	Gly	Cys	Pro		
385					390					395					400		
Ser	Leu	Phe	Gln	Arg	His	Glu	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr		
			405						410					415			
Gln	Cys	Lys	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Leu	Ala	Gly	Ser	Leu	Arg		
		420						425					430				
Arg	His	Glu	Ala	Thr	His	Thr	Gly	Val	Lys	Pro	Tyr	Lys	Cys	Gln	Cys		
		435					440					445					
Gly	Lys	Ala	Phe	Ser	Asp	Leu	Ser	Ser	Phe	Gln	Asn	His	Glu	Thr	Thr		
	450					455					460						
His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe		
465					470					475					480		
Ser	Cys	Phe	Lys	Tyr	Leu	Ser	Gln	His	Lys	Arg	Thr	His	Thr	Val	Glu		
			485						490					495			
Lys	Pro	Tyr	Glu	Cys	Lys	Thr	Cys	Arg	Lys	Ala	Phe	Ser	His	Phe	Ser		
		500						505					510				
Asn	Leu	Lys	Val	His	Glu	Arg	Ile	His	Ser	Gly	Glu	Lys	Pro	Tyr	Glu		
	515						520						525				
Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Ser	Trp	Leu	Thr	Cys	Leu	Leu	Arg		
	530					535					540						
His	Glu	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Leu	Gln	Cys		
545					550					555					560		
Gly	Lys	Ala	Phe	Thr	Arg	Ser	Arg	Phe	Leu	Arg	Gly	His	Glu	Lys	Thr		
			565					570						575			
His	Thr	Gly	Glu	Lys	Leu	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Leu		
		580						585					590				
Ser	Ser	Leu	Arg	Ser	Leu	His	Arg	His	Lys	Arg	Thr	His	Trp	Lys	Asp		
		595					600						605				

Thr Leu *
610

<210> 1874
<211> 196
<212> PRT
<213> Homo sapiens

<400> 1874
Met Pro Ala Phe Asn Arg Leu Phe Pro Leu Ala Ser Leu Val Leu Ile
1 5 10 15
Tyr Trp Val Ser Val Cys Phe Pro Val Cys Val Glu Val Pro Ser Glu
20 25 30
Thr Glu Ala Val Gln Gly Asn Pro Met Lys Leu Arg Cys Ile Ser Cys
35 40 45
Met Lys Arg Glu Glu Val Glu Ala Thr Thr Val Val Glu Trp Phe Tyr
50 55 60
Arg Pro Glu Gly Gly Lys Asp Phe Leu Ile Tyr Glu Tyr Arg Asn Gly
65 70 75 80
His Gln Glu Val Glu Ser Pro Phe Gln Gly Arg Leu Gln Trp Asn Gly
85 90 95
Ser Lys Asp Leu Gln Asp Val Ser Ile Thr Val Leu Asn Val Thr Leu
100 105 110
Asn Asp Ser Gly Leu Tyr Thr Cys Asn Val Ser Arg Glu Phe Glu Phe
115 120 125
Glu Ala His Arg Pro Phe Val Lys Thr Thr Arg Leu Ile Pro Leu Arg
130 135 140
Val Thr Glu Glu Ala Gly Glu Asp Phe Thr Ser Val Val Ser Glu Ile
145 150 155 160
Met Met Tyr Ile Leu Leu Val Phe Leu Thr Leu Trp Leu Leu Ile Glu
165 170 175
Met Ile Tyr Cys Tyr Arg Lys Val Ser Lys Ala Glu Glu Ala Ala Gln
180 185 190
Glu Asn Ala *
195

<210> 1875
<211> 196
<212> PRT
<213> Homo sapiens

<400> 1875
Met Tyr Ile Thr Ile Tyr Ser Met Met Lys Ile Pro His Gln Thr Gln
1 5 10 15
Lys Lys Arg Ser Leu Glu Asp Pro Asn Ser Arg Pro Arg Arg Pro Phe
20 25 30
Phe Lys Ser Val Lys Glu Glu Val Phe Trp Arg Asn Tyr Phe Tyr Arg
35 40 45
Val Ser Leu Ile Lys Gln Ser Ala Gln Leu Thr Ala Leu Ala Ala Gln
50 55 60
Gln Gln Ala Ala Gly Lys Glu Glu Lys Ser Asn Gly Arg Glu Gln Asp
65 70 75 80
Leu Pro Leu Ala Glu Ala Val Arg Pro Lys Thr Pro Pro Val Val Ile
85 90 95
Lys Ser Gln Leu Lys Thr Gln Glu Asp Glu Glu Glu Ile Ser Thr Ser
100 105 110
Pro Gly Val Ser Glu Phe Val Ser Asp Ala Phe Asp Ala Cys Asn Leu
115 120 125

Asn Gln Glu Asp Leu Arg Lys Glu Met Glu Gln Leu Val Leu Asp Lys
 130 135 140
 Lys Gln Glu Glu Thr Ala Val Leu Glu Glu Asp Ser Ala Asp Trp Glu
 145 150 155 160
 Lys Glu Leu Gln Gln Glu Leu Gln Glu Tyr Glu Val Val Thr Glu Ser
 165 170 175
 Glu Lys Arg Asp Glu Asn Trp Asp Lys Glu Ile Glu Lys Met Leu Gln
 180 185 190
 Glu Glu Asn *
 195

<210> 1876
 <211> 582
 <212> PRT
 <213> Homo sapiens

<400> 1876
 Met Pro Ala Pro Arg Ala Arg Glu Gln Pro Arg Val Pro Gly Glu Arg
 1 5 10 15
 Gln Pro Leu Leu Pro Arg Gly Ala Arg Gly Pro Arg Arg Trp Arg Arg
 20 25 30
 Ala Ala Gly Ala Ala Val Leu Leu Val Glu Met Leu Glu Arg Ala Ala
 35 40 45
 Phe Phe Gly Val Thr Ala Asn Leu Val Leu Tyr Leu Asn Ser Thr Asn
 50 55 60
 Phe Asn Trp Thr Gly Glu Gln Ala Thr Arg Ala Ala Leu Val Phe Leu
 65 70 75 80
 Gly Ala Ser Tyr Leu Leu Ala Pro Val Gly Gly Trp Leu Ala Asp Val
 85 90 95
 Tyr Leu Gly Arg Tyr Arg Ala Val Ala Leu Ser Leu Leu Tyr Leu
 100 105 110
 Ala Ala Ser Gly Leu Leu Pro Ala Thr Ala Phe Pro Asp Gly Arg Ser
 115 120 125
 Ser Phe Cys Gly Glu Met Pro Ala Ser Pro Leu Gly Pro Ala Cys Pro
 130 135 140
 Ser Ala Gly Cys Pro Arg Ser Ser Pro Ser Pro Tyr Cys Ala Pro Val
 145 150 155 160
 Leu Tyr Ala Gly Leu Leu Leu Gly Leu Ala Ala Ser Ser Val Arg
 165 170 175
 Ser Asn Leu Thr Ser Phe Gly Ala Asp Gln Val Met Asp Leu Gly Arg
 180 185 190
 Asp Ala Thr Arg Arg Phe Phe Asn Trp Phe Tyr Trp Ser Ile Asn Leu
 195 200 205
 Gly Ala Val Leu Ser Leu Leu Val Val Ala Phe Ile Gln Gln Asn Ile
 210 215 220
 Ser Phe Leu Leu Gly Tyr Ser Ile Pro Val Gly Cys Val Gly Leu Ala
 225 230 235 240
 Phe Phe Ile Phe Leu Phe Ala Thr Pro Val Phe Ile Thr Lys Pro Pro
 245 250 255
 Met Gly Ser Gln Val Ser Ser Met Leu Lys Leu Ala Leu Gln Asn Cys
 260 265 270
 Cys Pro Gln Leu Trp Gln Arg His Ser Ala Arg Asp Arg Gln Cys Ala
 275 280 285
 Arg Val Leu Ala Asp Glu Arg Ser Pro Gln Pro Gly Ala Ser Pro Gln
 290 295 300
 Glu Asp Ile Ala Asn Phe Gln Val Leu Val Lys Ile Leu Pro Val Met
 305 310 315 320
 Val Thr Leu Val Pro Tyr Trp Met Val Tyr Phe Gln Met Gln Ser Thr
 325 330 335
 Tyr Val Leu Gln Gly Leu His Leu His Ile Pro Asn Ile Phe Pro Ala
 340 345 350

Asn Pro Ala Asn Ile Ser Val Ala Leu Arg Ala Gln Gly Ser Ser Tyr
 355 360 365
 Thr Ile Pro Glu Ala Trp Leu Leu Leu Ala Asn Val Val Val Leu
 370 375 380
 Ile Leu Val Pro Leu Lys Asp Arg Leu Ile Asp Pro Leu Leu Leu Arg
 385 390 395 400
 Cys Lys Leu Leu Pro Ser Ala Leu Gln Lys Met Ala Leu Gly Met Phe
 405 410 415
 Phe Gly Phe Thr Ser Val Ile Val Ala Gly Val Leu Glu Met Glu Arg
 420 425 430
 Leu His Tyr Ile His His Asn Glu Thr Val Ser Gln Gln Ile Gly Glu
 435 440 445
 Val Leu Tyr Asn Ala Ala Pro Leu Ser Ile Trp Trp Gln Ile Pro Gln
 450 455 460
 Tyr Leu Leu Ile Gly Ile Ser Glu Ile Phe Ala Ser Ile Pro Gly Leu
 465 470 475 480
 Glu Phe Ala Tyr Ser Glu Ala Pro Arg Ser Met Gln Gly Ala Ile Met
 485 490 495
 Gly Ile Phe Phe Cys Leu Ser Gly Val Gly Ser Leu Leu Gly Ser Ser
 500 505 510
 Leu Val Ala Leu Leu Ser Leu Pro Gly Gly Trp Leu His Cys Pro Lys
 515 520 525
 Asp Phe Gly Asn Ile Asn Asn Cys Arg Met Asp Leu Tyr Phe Phe Leu
 530 535 540
 Leu Ala Gly Ile Gln Ala Val Thr Ala Leu Leu Phe Val Trp Ile Ala
 545 550 555 560
 Gly Arg Tyr Glu Arg Ala Ser Gln Gly Pro Ala Ser His Ser Arg Phe
 565 570 575
 Ser Arg Asp Arg Gly *
 580 581

<210> 1877
 <211> 871
 <212> PRT
 <213> Homo sapiens

<400> 1877
 Met Gly Pro Pro Ser Leu Val Leu Cys Leu Leu Ser Ala Thr Val Phe
 1 5 10 15
 Ser Leu Leu Gly Gly Ser Ser Ala Phe Leu Ser His His Arg Leu Lys
 20 25 30
 Gly Arg Phe Gln Arg Asp Arg Arg Asn Ile Arg Pro Asn Ile Ile Leu
 35 40 45
 Val Leu Thr Asp Asp Gln Asp Val Glu Leu Gly Ser Met Gln Val Met
 50 55 60
 Asn Lys Thr Arg Arg Ile Met Glu Gln Gly Gly Ala His Phe Ile Asn
 65 70 75 80
 Ala Phe Val Thr Thr Pro Met Cys Cys Pro Ser Arg Ser Ser Ile Leu
 85 90 95
 Thr Gly Lys Tyr Val His Asn His Asn Thr Tyr Thr Asn Asn Glu Asn
 100 105 110
 Cys Ser Ser Pro Ser Trp Gln Ala Gln His Glu Ser Arg Thr Phe Ala
 115 120 125
 Val Tyr Leu Asn Ser Thr Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr
 130 135 140
 Leu Asn Glu Tyr Asn Gly Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp
 145 150 155 160
 Val Gly Leu Leu Lys Asn Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg
 165 170 175
 Asn Gly Val Lys Glu Lys His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu
 180 185 190

Thr	Asp	Leu	Ile	Thr	Asn	Asp	Ser	Val	Ser	Phe	Phe	Arg	Thr	Ser	Lys
	195						200					205			
Lys	Met	Tyr	Pro	His	Arg	Pro	Val	Leu	Met	Val	Ile	Ser	His	Ala	Ala
	210					215					220				
Pro	His	Gly	Pro	Glu	Asp	Ser	Ala	Pro	Gln	Tyr	Ser	Arg	Leu	Phe	Pro
225					230					235					240
Asn	Ala	Ser	Gln	His	Ile	Thr	Pro	Ser	Tyr	Asn	Tyr	Ala	Pro	Asn	Pro
			245						250					255	
Asp	Lys	His	Trp	Ile	Met	Arg	Tyr	Thr	Gly	Pro	Met	Lys	Pro	Ile	His
	260							265					270		
Met	Glu	Phe	Thr	Asn	Met	Leu	Gln	Arg	Lys	Arg	Leu	Gln	Thr	Leu	Met
	275					280						285			
Ser	Val	Asp	Asp	Ser	Met	Glu	Thr	Ile	Tyr	Asn	Met	Leu	Val	Glu	Thr
	290					295					300				
Gly	Glu	Leu	Asp	Asn	Thr	Tyr	Ile	Val	Tyr	Thr	Ala	Asp	His	Gly	Tyr
305					310					315					320
His	Ile	Gly	Gln	Phe	Gly	Leu	Val	Lys	Gly	Lys	Ser	Met	Pro	Tyr	Glu
			325						330					335	
Phe	Asp	Ile	Arg	Val	Pro	Phe	Tyr	Val	Arg	Gly	Pro	Asn	Val	Glu	Ala
	340							345					350		
Gly	Cys	Leu	Asn	Pro	His	Ile	Val	Leu	Asn	Ile	Asp	Leu	Ala	Pro	Thr
	355					360						365			
Ile	Leu	Asp	Ile	Ala	Gly	Leu	Asp	Ile	Pro	Ala	Asp	Met	Asp	Gly	Lys
	370					375					380				
Ser	Ile	Leu	Lys	Leu	Leu	Asp	Thr	Glu	Arg	Pro	Val	Asn	Arg	Phe	His
385					390					395					400
Leu	Lys	Lys	Lys	Met	Arg	Val	Trp	Arg	Asp	Ser	Phe	Leu	Val	Glu	Arg
			405						410					415	
Gly	Lys	Leu	Leu	His	Lys	Arg	Asp	Asn	Asp	Lys	Val	Asp	Ala	Gln	Glu
		420					425						430		
Glu	Asn	Phe	Leu	Pro	Lys	Tyr	Gln	Arg	Val	Lys	Asp	Leu	Cys	Gln	Arg
	435					440						445			
Ala	Glu	Tyr	Gln	Thr	Ala	Cys	Glu	Gln	Leu	Gly	Gln	Lys	Trp	Gln	Cys
	450					455					460				
Val	Glu	Asp	Ala	Thr	Gly	Lys	Leu	Lys	Leu	His	Lys	Cys	Lys	Gly	Pro
465					470					475					480
Met	Arg	Leu	Gly	Gly	Ser	Arg	Ala	Leu	Ser	Asn	Leu	Val	Pro	Lys	Tyr
			485						490					495	
Tyr	Gly	Gln	Gly	Ser	Glu	Ala	Cys	Thr	Cys	Asp	Ser	Gly	Asp	Tyr	Lys
		500						505					510		
Leu	Ser	Leu	Ala	Gly	Arg	Arg	Lys	Lys	Leu	Phe	Lys	Lys	Lys	Tyr	Lys
	515						520					525			
Ala	Ser	Tyr	Val	Arg	Ser	Arg	Ser	Ile	Arg	Ser	Val	Ala	Ile	Glu	Val
	530					535					540				
Asp	Gly	Arg	Val	Tyr	His	Val	Gly	Leu	Gly	Asp	Ala	Ala	Gln	Pro	Arg
545					550					555					560
Asn	Leu	Thr	Lys	Arg	His	Trp	Pro	Gly	Ala	Pro	Glu	Asp	Gln	Asp	Asp
			565						570					575	
Lys	Asp	Gly	Gly	Asp	Phe	Ser	Gly	Thr	Gly	Gly	Leu	Pro	Asp	Tyr	Ser
		580						585					590		
Ala	Ala	Asn	Pro	Ile	Lys	Val	Thr	His	Arg	Cys	Tyr	Ile	Leu	Glu	Asn
	595						600					605			
Asp	Thr	Val	Gln	Cys	Asp	Leu	Asp	Leu	Tyr	Lys	Ser	Leu	Gln	Ala	Trp
	610					615						620			
Lys	Asp	His	Lys	Leu	His	Ile	Asp	His	Glu	Ile	Glu	Thr	Leu	Gln	Asn
625					630					635					640
Lys	Ile	Lys	Asn	Leu	Arg	Glu	Val	Arg	Gly	His	Leu	Lys	Lys	Lys	Arg
			645						650					655	
Pro	Glu	Glu	Cys	Asp	Cys	His	Lys	Ile	Ser	Tyr	His	Thr	Gln	His	Lys
	660							665					670		
Gly	Arg	Leu	Lys	His	Arg	Gly	Ser	Ser	Leu	His	Pro	Phe	Arg	Lys	Gly
	675						680					685			
Leu	Gln	Glu	Lys	Asp	Lys	Val	Trp	Leu	Leu	Arg	Glu	Gln	Lys	Arg	Lys
	690					695						700			

Lys Lys Leu Arg Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys
 705 710 715 720
 Ser Met Pro Gly Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln
 725 730 735
 Thr Ala Pro Phe Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala
 740 745 750
 Asn Asn Asn Thr Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn
 755 760 765
 Phe Leu Phe Cys Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu
 770 775 780
 Asn Thr Asp Pro Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg
 785 790 795 800
 Asp Val Leu Asn Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys
 805 810 815
 Lys Gly Tyr Lys Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly
 820 825 830
 Leu Lys Asp Gly Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg
 835 840 845
 Lys Trp Pro Glu Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu
 850 855 860
 Trp Glu Gly Trp Glu Gly *
 865 870

<210> 1878

<211> 851

<212> PRT

<213> Homo sapiens

<400> 1878

Met Gly Pro Pro Ser Leu Val Leu Cys Leu Leu Ser Ala Thr Val Phe
 1 5 10 15
 Ser Leu Leu Gly Gly Ser Ser Ala Phe Leu Ser His His Arg Leu Lys
 20 25 30
 Gly Arg Phe Gln Arg Asp Arg Arg Asn Ile Arg Pro Asn Ile Ile Leu
 35 40 45
 Val Leu Thr Asp Asp Gln Asp Val Glu Leu Gly Ser Met Gln Val Met
 50 55 60
 Asn Lys Thr Arg Arg Ile Met Glu Gln Gly Gly Ala His Phe Ile Asn
 65 70 75 80
 Ala Phe Val Thr Thr Pro Met Cys Cys Pro Ser Arg Ser Ser Ile Leu
 85 90 95
 Thr Gly Lys Tyr Val His Asn His Asn Thr Tyr Thr Asn Asn Glu Asn
 100 105 110
 Cys Ser Ser Pro Ser Trp Gln Ala Gln His Glu Ser Arg Thr Phe Ala
 115 120 125
 Val Tyr Leu Asn Ser Thr Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr
 130 135 140
 Leu Asn Glu Tyr Asn Gly Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp
 145 150 155 160
 Val Gly Leu Leu Lys Asn Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg
 165 170 175
 Asn Gly Val Lys Lys His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu
 180 185 190
 Thr Asp Leu Ile Thr Asn Asp Ser Val Ser Phe Phe Arg Thr Ser Lys
 195 200 205
 Lys Met Tyr Pro His Arg Pro Val Leu Met Val Ile Ser His Ala Ala
 210 215 220
 Pro His Gly Pro Glu Asp Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro
 225 230 235 240
 Asn Ala Ser Gln His Ile Thr Pro Ser Tyr Asn Tyr Ala Pro Asn Pro
 245 250 255

Asp Lys His Trp Ile Met Arg Tyr Thr Gly Pro Met Lys Pro Ile His
 260 265 270
 Met Glu Phe Thr Asn Met Leu Gln Arg Lys Arg Leu Gln Thr Leu Met
 275 280 285
 Ser Val Asp Asp Ser Met Glu Thr Ile Tyr Asn Met Leu Val Glu Thr
 290 295 300
 Gly Glu Leu Asp Asn Thr Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr
 305 310 315 320
 His Ile Gly Gln Phe Gly Leu Val Lys Gly Lys Ser Met Pro Tyr Glu
 325 330 335
 Phe Asp Ile Arg Val Pro Phe Tyr Val Arg Gly Pro Asn Val Glu Ala
 340 345 350
 Gly Cys Leu Asn Pro His Ile Val Leu Asn Ile Asp Leu Ala Pro Thr
 355 360 365
 Ile Leu Asp Ile Ala Gly Leu Asp Ile Pro Ala Asp Met Asp Gly Lys
 370 375 380
 Ser Ile Leu Lys Leu Leu Asp Thr Glu Arg Pro Val Asn Arg Phe His
 385 390 395 400
 Leu Lys Lys Lys Met Arg Val Trp Arg Asp Ser Phe Leu Val Glu Arg
 405 410 415
 Gly Lys Leu Leu His Lys Arg Asp Asn Asp Lys Val Asp Ala Gln Glu
 420 425 430
 Glu Asn Phe Leu Pro Lys Tyr Gln Arg Val Lys Asp Leu Cys Gln Arg
 435 440 445
 Ala Glu Tyr Gln Thr Ala Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys
 450 455 460
 Val Glu Asp Ala Thr Gly Lys Leu Lys Leu His Lys Cys Lys Gly Pro
 465 470 475 480
 Met Arg Leu Gly Gly Ser Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr
 485 490 495
 Tyr Gly Gln Gly Ser Glu Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys
 500 505 510
 Leu Ser Leu Ala Gly Arg Arg Lys Lys Leu Phe Lys Lys Lys Tyr Lys
 515 520 525
 Ala Ser Tyr Val Arg Ser Arg Ser Ile Arg Ser Val Ala Ile Glu Val
 530 535 540
 Asp Gly Arg Val Tyr His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg
 545 550 555 560
 Asn Leu Thr Lys Arg His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp
 565 570 575
 Lys Asp Gly Gly Asp Phe Ser Gly Thr Gly Gly Leu Pro Asp Tyr Ser
 580 585 590
 Ala Ala Asn Pro Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn
 595 600 605
 Asp Thr Val Gln Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp
 610 615 620
 Lys Asp His Lys Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn
 625 630 635 640
 Lys Ile Lys Asn Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg
 645 650 655
 Pro Glu Glu Cys Asp Cys His Lys Ile Arg Lys Gly Leu Gln Glu Lys
 660 665 670
 Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg
 675 680 685
 Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly
 690 695 700
 Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe
 705 710 715 720
 Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr
 725 730 735
 Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys
 740 745 750
 Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro
 755 760 765

Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn
 770 775 780
 Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys
 785 790 795 800
 Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly
 805 810 815
 Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu
 820 825 830
 Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly Trp
 835 840 845
 Glu Gly *
 850

<210> 1879

<211> 420

<212> PRT

<213> Homo sapiens

<400> 1879

Met Val Phe Ser Ala Val Leu Thr Ala Phe His Thr Gly Thr Ser Asn
 1 5 10 15
 Thr Thr Phe Val Val Tyr Glu Asn Thr Tyr Met Asn Ile Thr Leu Pro
 20 25 30
 Pro Pro Phe Gln His Pro Asp Leu Ser Pro Leu Leu Arg Tyr Ser Phe
 35 40 45
 Glu Thr Met Ala Pro Thr Gly Leu Ser Ser Leu Thr Val Asn Ser Thr
 50 55 60
 Ala Val Pro Thr Thr Pro Ala Ala Phe Lys Ser Leu Asn Leu Pro Leu
 65 70 75 80
 Gln Ile Thr Leu Ser Ala Ile Met Ile Phe Ile Leu Phe Val Ser Phe
 85 90 95
 Leu Gly Asn Leu Val Val Cys Leu Met Val Tyr Gln Lys Ala Ala Met
 100 105 110
 Arg Ser Ala Ile Asn Ile Leu Leu Ala Ser Leu Ala Phe Ala Asp Met
 115 120 125
 Leu Leu Ala Val Leu Asn Met Pro Phe Ala Leu Val Thr Ile Leu Thr
 130 135 140
 Thr Arg Trp Ile Phe Gly Lys Phe Phe Cys Arg Val Ser Ala Met Phe
 145 150 155 160
 Phe Trp Leu Phe Val Ile Glu Gly Val Ala Ile Leu Leu Ile Ile Ser
 165 170 175
 Ile Asp Arg Phe Leu Ile Ile Val Gln Arg Gln Asp Lys Leu Asn Pro
 180 185 190
 Tyr Arg Ala Lys Val Leu Ile Ala Val Ser Trp Ala Thr Ser Phe Cys
 195 200 205
 Val Ala Phe Pro Leu Ala Val Gly Asn Pro Asp Leu Gln Ile Pro Ser
 210 215 220
 Arg Ala Pro Gln Cys Val Phe Gly Tyr Thr Thr Asn Pro Gly Tyr Gln
 225 230 235 240
 Ala Tyr Val Ile Leu Ile Ser Leu Ile Ser Phe Phe Ile Pro Phe Leu
 245 250 255
 Val Ile Leu Tyr Ser Phe Met Gly Ile Leu Asn Thr Leu Arg His Asn
 260 265 270
 Ala Leu Arg Ile His Ser Tyr Pro Glu Gly Ile Cys Leu Ser Gln Ala
 275 280 285
 Ser Lys Leu Gly Leu Met Ser Leu Gln Arg Pro Phe Gln Met Ser Ile
 290 295 300
 Asp Met Gly Phe Lys Thr Arg Ala Phe Thr Thr Ile Leu Ile Leu Phe
 305 310 315 320
 Ala Val Phe Ile Val Cys Trp Ala Pro Phe Thr Thr Tyr Ser Leu Val
 325 330 335

Ala Thr Phe Ser Lys His Phe Tyr Tyr Gln His Asn Phe Phe Glu Ile
 340 345 350
 Ser Thr Trp Leu Leu Trp Leu Cys Tyr Leu Lys Ser Ala Leu Asn Pro
 355 360 365
 Leu Ile Tyr Tyr Trp Arg Ile Lys Lys Phe His Asp Ala Cys Leu Asp
 370 375 380
 Met Met Pro Lys Ser Phe Lys Phe Leu Pro Gln Leu Pro Gly His Thr
 385 390 395 400
 Lys Arg Arg Ile Arg Pro Ser Ala Val Tyr Val Cys Gly Glu His Arg
 405 410 415
 Thr Val Val *
 419

<210> 1880
 <211> 944
 <212> PRT
 <213> Homo sapiens

<400> 1880
 Met Ala Ala Val Ala Ala Val Ala Ala Arg Arg Arg Arg Ser Trp Ala
 1 5 10 15
 Ser Leu Val Leu Ala Phe Leu Gly Val Cys Leu Gly Ile Thr Leu Ala
 20 25 30
 Val Asp Arg Ser Asn Phe Lys Thr Cys Glu Glu Ser Ser Phe Cys Lys
 35 40 45
 Arg Gln Arg Ser Ile Arg Pro Gly Leu Ser Pro Tyr Arg Ala Leu Leu
 50 55 60
 Asp Ser Leu Gln Leu Gly Pro Asp Ser Leu Thr Val His Leu Ile His
 65 70 75 80
 Glu Val Thr Lys Val Leu Leu Val Leu Glu Leu Gln Gly Leu Gln Lys
 85 90 95
 Asn Met Thr Arg Phe Arg Ile Asp Glu Leu Glu Pro Arg Arg Pro Arg
 100 105 110
 Tyr Arg Val Pro Asp Val Leu Val Ala Asp Pro Pro Ile Ala Arg Leu
 115 120 125
 Ser Val Ser Gly Arg Asp Glu Asn Ser Val Glu Leu Thr Met Ala Glu
 130 135 140
 Gly Pro Tyr Lys Ile Ile Leu Thr Ala Arg Pro Phe Arg Leu Asp Leu
 145 150 155 160
 Leu Glu Asp Arg Ser Leu Leu Leu Ser Val Asn Ala Arg Gly Leu Leu
 165 170 175
 Glu Phe Glu His Gln Arg Ala Pro Arg Val Ser Gln Gly Ser Lys Asp
 180 185 190
 Pro Ala Glu Gly Asp Gly Ala Gln Pro Glu Glu Thr Pro Arg Asp Gly
 195 200 205
 Asp Lys Pro Glu Glu Thr Gln Gly Lys Ala Glu Lys Asp Glu Pro Gly
 210 215 220
 Ala Trp Glu Glu Thr Phe Lys Thr His Ser Asp Ser Lys Pro Tyr Gly
 225 230 235 240
 Pro Met Ser Val Gly Leu Asp Phe Ser Leu Pro Gly Met Glu His Val
 245 250 255
 Tyr Gly Ile Pro Glu His Ala Asp Asn Leu Arg Leu Lys Val Thr Glu
 260 265 270
 Gly Gly Glu Pro Tyr Arg Leu Tyr Asn Leu Asp Val Phe Gln Tyr Glu
 275 280 285
 Leu Tyr Asn Pro Met Ala Leu Tyr Gly Ser Val Pro Val Leu Leu Ala
 290 295 300
 His Asn Pro His Arg Asp Leu Gly Ile Phe Trp Leu Asn Ala Ala Glu
 305 310 315 320
 Thr Trp Val Asp Ile Ser Ser Asn Thr Ala Gly Lys Thr Leu Phe Gly
 325 330 335

Lys Met Met Asp Tyr Leu Gln Gly Ser Gly Glu Thr Pro Gln Thr Asp
 340 345 350
 Val Arg Trp Met Ser Glu Thr Gly Ile Ile Asp Val Phe Leu Leu Leu
 355 360 365
 Gly Pro Ser Ile Ser Asp Val Phe Arg Gln Tyr Ala Ser Leu Thr Gly
 370 375 380
 Thr Gln Ala Leu Pro Pro Leu Phe Ser Leu Gly Tyr His Gln Ser Arg
 385 390 395 400
 Trp Asn Tyr Arg Asp Glu Ala Asp Val Leu Glu Val Asp Gln Gly Phe
 405 410 415
 Asp Asp His Asn Leu Pro Cys Asp Val Ile Trp Leu Asp Ile Glu His
 420 425 430
 Ala Asp Gly Lys Arg Tyr Phe Thr Trp Asp Pro Ser Arg Phe Pro Gln
 435 440 445
 Pro Arg Thr Met Leu Glu Arg Leu Ala Ser Lys Arg Arg Lys Leu Val
 450 455 460
 Ala Ile Val Asp Pro His Ile Lys Val Asp Ser Gly Tyr Arg Val His
 465 470 475 480
 Glu Glu Leu Arg Asn Leu Gly Leu Tyr Val Lys Thr Arg Asp Gly Ser
 485 490 495
 Asp Tyr Glu Gly Trp Cys Trp Pro Gly Ser Ala Gly Tyr Pro Asp Phe
 500 505 510
 Thr Asn Pro Thr Met Arg Ala Trp Trp Ala Asn Met Phe Ser Tyr Asp
 515 520 525
 Asn Tyr Glu Gly Ser Ala Pro Asn Leu Phe Val Trp Asn Asp Met Asn
 530 535 540
 Glu Pro Ser Val Phe Asn Gly Pro Glu Val Thr Met Leu Lys Asp Ala
 545 550 555 560
 Gln His Tyr Gly Gly Trp Glu His Arg Asp Val His Asn Ile Tyr Gly
 565 570 575
 Leu Tyr Val His Met Ala Thr Ala Asp Gly Leu Arg Gln Arg Ser Gly
 580 585 590
 Gly Met Glu Arg Pro Phe Val Leu Ala Arg Ala Phe Phe Ala Gly Ser
 595 600 605
 Gln Arg Phe Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp Asp
 610 615 620
 His Leu Lys Ile Ser Ile Pro Met Cys Leu Ser Leu Gly Leu Val Gly
 625 630 635 640
 Leu Ser Phe Cys Gly Ala Asp Val Gly Gly Phe Phe Lys Asn Pro Glu
 645 650 655
 Pro Glu Leu Leu Val Arg Trp Tyr Gln Met Gly Ala Tyr Gln Pro Phe
 660 665 670
 Phe Arg Ala His Ala His Leu Asp Thr Gly Arg Arg Glu Pro Trp Leu
 675 680 685
 Leu Pro Ser Gln His Asn Asp Ile Ile Arg Asp Ala Leu Gly Gln Arg
 690 695 700
 Tyr Ser Leu Leu Pro Phe Trp Tyr Thr Leu Leu Tyr Gln Ala His Arg
 705 710 715 720
 Glu Gly Ile Pro Val Met Arg Pro Leu Trp Val Gln Tyr Pro Gln Asp
 725 730 735
 Val Thr Thr Phe Asn Ile Asp Asp Gln Tyr Leu Leu Gly Asp Ala Leu
 740 745 750
 Leu Val His Pro Val Ser Asp Ser Gly Ala His Gly Val Gln Val Tyr
 755 760 765
 Leu Pro Gly Gln Gly Glu Val Trp Tyr Asp Ile Gln Ser Tyr Gln Lys
 770 775 780
 His His Gly Pro Gln Thr Leu Tyr Leu Pro Val Thr Leu Ser Ser Ile
 785 790 795 800
 Pro Val Phe Gln Arg Gly Gly Thr Ile Val Pro Arg Trp Met Arg Val
 805 810 815
 Arg Arg Ser Ser Glu Cys Met Lys Asp Asp Pro Ile Thr Leu Phe Val
 820 825 830
 Ala Leu Ser Pro Gln Gly Thr Ala Gln Gly Glu Leu Phe Leu Asp Asp
 835 840 845

Gly His Thr Phe Asn Tyr Gln Thr Arg Gln Glu Phe Leu Leu Arg Arg
 850 855 860
 Phe Ser Phe Ser Gly Asn Thr Leu Val Ser Ser Ser Ala Asp Pro Glu
 865 870 875 880
 Gly His Phe Glu Thr Pro Ile Trp Ile Glu Arg Val Val Ile Ile Gly
 885 890 895
 Ala Gly Lys Pro Ala Ala Val Val Leu Gln Thr Lys Gly Ser Pro Glu
 900 905 910
 Ser Arg Leu Ser Phe Gln His Asp Pro Glu Thr Ser Val Leu Val Leu
 915 920 925
 Arg Lys Pro Gly Ile Asn Val Ala Ser Asp Trp Ser Ile His Leu Arg
 930 935 940 944

<210> 1881
 <211> 725
 <212> PRT
 <213> Homo sapiens

<400> 1881
 Met Lys Thr Glu Gly Gly Lys Val Leu Tyr Lys Val Arg Trp Lys Gly
 1 5 10 15
 Tyr Thr Ser Asp Asp Thr Trp Glu Pro Glu Ile His Leu Glu Asp
 20 25 30
 Cys Lys Glu Val Leu Leu Glu Phe Arg Lys Arg Ile Ala Glu Asn Ile
 35 40 45
 Ala Lys Ala Val Lys Lys Asp Ile Gln Arg Leu Ser Leu Asn Asn Asp
 50 55 60
 Ile Phe Glu Ala Asn Ser Asp Ser Asp Gln Gln Ser Glu Thr Lys Glu
 65 70 75 80
 Asp Thr Ser Pro Lys Lys Lys Lys Lys Lys Leu Arg Gln Arg Glu Glu
 85 90 95
 Lys Ser Pro Asp Asp Leu Lys Lys Lys Lys Ala Lys Ala Gly Lys Leu
 100 105 110
 Lys Asp Lys Ser Lys Pro Asp Leu Glu Ser Ser Leu Glu Ser Leu Val
 115 120 125
 Phe Asp Leu Arg Thr Lys Lys Arg Ile Ser Glu Ala Lys Glu Glu Leu
 130 135 140
 Lys Glu Ser Lys Lys Pro Lys Lys Asp Glu Val Lys Glu Thr Lys Glu
 145 150 155 160
 Leu Lys Lys Val Lys Lys Gly Glu Ile Arg Asp Leu Lys Thr Lys Thr
 165 170 175
 Arg Glu Asp Pro Lys Glu Asn Arg Lys Thr Lys Lys Glu Lys Phe Val
 180 185 190
 Glu Ser Gln Val Glu Ser Glu Ser Val Leu Asn Asp Ser Pro Phe
 195 200 205
 Pro Glu Asp Asp Ser Glu Gly Leu His Ser Asp Ser Arg Glu Glu Lys
 210 215 220
 Gln Asn Thr Lys Ser Ala Arg Glu Arg Ala Gly Gln Asp Met Gly Leu
 225 230 235 240
 Glu His Gly Phe Glu Lys Pro Leu Asp Ser Ala Met Ser Ala Glu Glu
 245 250 255
 Asp Thr Asp Val Arg Gly Arg Arg Lys Lys Lys Thr Pro Arg Lys Ala
 260 265 270
 Glu Asp Thr Arg Glu Asn Arg Lys Leu Glu Asn Lys Asn Ala Phe Leu
 275 280 285
 Glu Lys Lys Thr Val Pro Lys Lys Gln Arg Asn Gln Asp Arg Ser Lys
 290 295 300
 Ser Ala Ala Glu Leu Glu Lys Leu Met Pro Val Ser Ala Gln Thr Pro
 305 310 315 320

Lys Gly Arg Arg Leu Ser Gly Glu Glu Arg Gly Leu Trp Ser Thr Asp
 325 330 335
 Ser Ala Glu Glu Asp Lys Glu Thr Lys Arg Asn Glu Ser Lys Glu Lys
 340 345 350
 Tyr Gln Lys Arg His Asp Ser Asp Lys Glu Glu Lys Gly Arg Lys Glu
 355 360 365
 Pro Lys Gly Leu Lys Lys Ala Ile Leu Val Gln Ala Ser Thr Ser Ser
 370 375 380
 Tyr Arg Gln Ser Gly Val Phe Ser Cys Gly Lys Gly Ala Gly Val Thr
 385 390 395 400
 Trp Ile Thr Leu Arg Leu Thr Ala Phe Ser Arg Pro Leu Ser Gln Leu
 405 410 415
 Gln Glu Ile Arg Asn Ala Phe Asp Leu Phe Lys Leu Thr Pro Glu Glu
 420 425 430
 Lys Asn Asp Val Ser Glu Asn Asn Arg Lys Arg Glu Glu Ile Pro Leu
 435 440 445
 Asp Phe Lys Thr Ile Asp Asp His Lys Thr Lys Glu Asn Lys Gln Ser
 450 455 460
 Leu Lys Glu Arg Arg Asn Thr Arg Asp Glu Thr Asp Thr Trp Ala Tyr
 465 470 475 480
 Ile Ala Ala Glu Gly Asp Gln Glu Val Leu Asp Ser Val Cys Gln Ala
 485 490 495
 Asp Glu Asn Ser Gly Ala Asn Arg Arg Leu Ile Gln Glu Ser Ser Gly
 500 505 510
 Trp His Leu Ala Gly Ala Pro Leu Gly Arg Ser Phe Gln Arg Lys Glu
 515 520 525
 Gln Ala Ala Ile Phe Ala Val Leu Gln Leu Pro Leu Val Ile Pro Arg
 530 535 540
 Gln Thr Glu Ser Gly Asp His Asn Ser Ser Pro Arg Glu Gln Asn Trp
 545 550 555 560
 Ala Glu Asn Glu Phe Asp Glu Leu Thr Glu Val Gly Phe Arg Arg Trp
 565 570 575
 Val Ile Asn Ser Ser Glu Leu Lys Glu His Val Leu Thr Gln Cys Lys
 580 585 590
 Glu Ala Lys Asn Leu Glu Lys Arg Leu Glu Glu Leu Leu Thr Arg Ile
 595 600 605
 Thr Ser Leu Gly Lys Asn Arg Asn Asp Leu Met Glu Leu Lys Thr Gln
 610 615 620
 His Glu Asn Phe Met Lys His Thr Gln Val Ser Ile Thr Lys Ser Glu
 625 630 635 640
 Arg Ser Ser Ser Pro Ala Thr Glu Gln Ser Trp Met Glu Asn Asp Phe
 645 650 655
 Asp Lys Leu Arg Glu Gly Phe Arg Arg Ser Asn Tyr Ser Glu Leu Lys
 660 665 670
 Glu Glu Val Gln Thr His Ser Lys Glu Val Lys Asn Leu Glu Lys Arg
 675 680 685
 Leu Asp Glu Trp Leu Thr Arg Ile Thr Asn Ala Glu Lys Ser Leu Lys
 690 695 700
 Asp Leu Met Glu Leu Lys Thr Lys Ala Arg Glu Leu Arg Asp Glu Arg
 705 710 715 720
 Thr Ser Leu Ser Ser
 725

<210> 1882

<211> 907

<212> PRT

<213> Homo sapiens

<400> 1882

Met Ala Gly Asn Val Lys Lys Ser Ser Gly Ala Gly Gly Gly Ser Gly
 1 5 10 15

Ser Gly Gly Ser Gly Ser Gly Gly Leu Ile Gly Leu Met Lys Asp Ala
 20 25 30
 Phe Gln Pro His His His His His His His Leu Ser Pro His Pro Pro
 35 40 45
 Gly Thr Val Asp Lys Lys Met Val Glu Lys Cys Trp Lys Leu Met Asp
 50 55 60
 Lys Val Val Arg Leu Cys Gln Asn Pro Lys Leu Ala Leu Lys Asn Ser
 65 70 75 80
 Pro Pro Tyr Ile Leu Asp Leu Leu Pro Asp Thr Tyr Gln His Leu Arg
 85 90 95
 Thr Ile Leu Ser Arg Tyr Glu Gly Lys Met Glu Thr Leu Gly Glu Asn
 100 105 110
 Glu Tyr Phe Arg Val Phe Met Glu Asn Leu Met Lys Lys Thr Lys Gln
 115 120 125
 Thr Ile Ser Leu Phe Lys Glu Gly Lys Glu Arg Met Tyr Glu Glu Asn
 130 135 140
 Ser Gln Pro Arg Arg Asn Leu Thr Lys Leu Ser Leu Ile Phe Ser His
 145 150 155 160
 Met Leu Ala Glu Leu Lys Gly Ile Phe Pro Ser Gly Leu Phe Gln Gly
 165 170 175
 Asp Thr Phe Arg Ile Thr Lys Ala Asp Ala Ala Glu Phe Trp Arg Lys
 180 185 190
 Ala Phe Gly Glu Lys Thr Ile Val Pro Trp Lys Ser Phe Arg Gln Ala
 195 200 205
 Leu His Glu Val His Pro Ile Ser Ser Gly Leu Glu Ala Met Ala Leu
 210 215 220
 Lys Ser Thr Ile Asp Leu Thr Cys Asn Asp Tyr Ile Ser Val Phe Glu
 225 230 235 240
 Phe Asp Ile Phe Thr Arg Leu Phe Gln Pro Trp Ser Ser Leu Leu Arg
 245 250 255
 Asn Trp Asn Ser Leu Ala Val Thr His Pro Gly Tyr Met Ala Phe Leu
 260 265 270
 Thr Tyr Asp Glu Val Lys Ala Arg Leu Gln Lys Phe Ile His Lys Pro
 275 280 285
 Gly Ser Tyr Ile Phe Arg Leu Ser Cys Thr Arg Leu Gly Gln Trp Ala
 290 295 300
 Ile Gly Tyr Val Thr Ala Asp Gly Asn Ile Leu Gln Thr Ile Pro His
 305 310 315 320
 Asn Lys Pro Leu Phe Gln Ala Leu Ile Asp Gly Phe Arg Glu Gly Phe
 325 330 335
 Tyr Leu Phe Pro Asp Gly Arg Asn Gln Asn Pro Asp Leu Thr Gly Leu
 340 345 350
 Cys Glu Pro Thr Pro Gln Asp His Ile Lys Val Thr Gln Glu Gln Tyr
 355 360 365
 Glu Leu Tyr Cys Glu Met Gly Ser Thr Phe Gln Leu Cys Lys Ile Cys
 370 375 380
 Ala Glu Asn Asp Lys Asp Val Lys Ile Glu Pro Cys Gly His Leu Met
 385 390 395 400
 Cys Thr Ser Cys Leu Thr Ser Trp Gln Glu Ser Glu Gly Gln Gly Cys
 405 410 415
 Pro Phe Cys Arg Cys Glu Ile Lys Gly Thr Glu Pro Ile Val Val Asp
 420 425 430
 Pro Phe Asp Pro Arg Gly Ser Gly Ser Leu Leu Arg Gln Gly Ala Glu
 435 440 445
 Gly Ala Pro Ser Pro Asn Tyr Asp Asp Asp Asp Glu Arg Ala Asp
 450 455 460
 Asp Thr Leu Phe Met Met Lys Glu Leu Ala Gly Ala Lys Val Glu Arg
 465 470 475 480
 Pro Pro Ser Pro Phe Ser Met Ala Pro Gln Ala Ser Leu Pro Pro Val
 485 490 495
 Pro Pro Arg Leu Asp Leu Leu Pro Gln Arg Val Cys Val Pro Ser Ser
 500 505 510
 Ala Ser Ala Leu Gly Thr Ala Ser Lys Ala Ala Ser Gly Ser Leu His
 515 520 525

Lys Asp Lys Pro Leu Pro Val Pro Pro Thr Leu Arg Asp Leu Pro Pro
 530 535 540
 Pro Pro Pro Pro Asp Arg Pro Tyr Ser Val Gly Ala Glu Ser Arg Pro
 545 550 555 560
 Gln Arg Arg Pro Leu Pro Cys Thr Pro Gly Asp Cys Pro Ser Arg Asp
 565 570 575
 Lys Leu Pro Pro Val Pro Ser Ser Arg Leu Gly Asp Ser Trp Leu Pro
 580 585 590
 Arg Pro Ile Pro Lys Val Pro Val Ser Ala Pro Ser Ser Ser Asp Pro
 595 600 605
 Trp Thr Gly Arg Glu Leu Thr Asn Arg His Ser Leu Pro Phe Ser Leu
 610 615 620
 Pro Ser Gln Met Glu Pro Arg Pro Asp Val Pro Arg Leu Gly Ser Thr
 625 630 635 640
 Phe Ser Leu Asp Thr Ser Met Ser Met Asn Ser Ser Pro Leu Val Gly
 645 650 655
 Pro Glu Cys Asp His Pro Lys Ile Lys Pro Ser Ser Ser Ala Asn Ala
 660 665 670
 Ile Tyr Ser Leu Ala Ala Arg Pro Leu Pro Val Pro Lys Leu Pro Pro
 675 680 685
 Gly Glu Gln Cys Glu Gly Glu Glu Asp Thr Glu Tyr Met Thr Pro Ser
 690 695 700
 Ser Arg Pro Leu Arg Pro Leu Asp Thr Ser Gln Ser Ser Arg Ala Cys
 705 710 715 720
 Asp Cys Asp Gln Gln Ile Asp Ser Cys Thr Tyr Glu Ala Met Tyr Asn
 725 730 735
 Ile Gln Ser Gln Ala Pro Ser Ile Thr Glu Ser Ser Thr Phe Gly Glu
 740 745 750
 Gly Asn Leu Ala Ala Ala His Ala Asn Thr Gly Pro Glu Glu Ser Glu
 755 760 765
 Asn Glu Asp Asp Gly Tyr Asp Val Pro Lys Pro Pro Val Pro Ala Val
 770 775 780
 Leu Ala Arg Arg Thr Leu Ser Asp Ile Ser Asn Ala Ser Ser Ser Phe
 785 790 795 800
 Gly Trp Leu Ser Leu Asp Gly Asp Pro Thr Thr Asn Val Thr Glu Gly
 805 810 815
 Ser Gln Val Pro Glu Arg Pro Pro Lys Pro Phe Pro Arg Arg Ile Asn
 820 825 830
 Ser Glu Arg Lys Ala Gly Ser Cys Gln Gln Gly Ser Gly Pro Ala Ala
 835 840 845
 Ser Ala Ala Thr Ala Ser Pro Gln Leu Ser Ser Glu Ile Glu Asn Leu
 850 855 860
 Met Ser Gln Gly Tyr Ser Tyr Gln Asp Ile Gln Lys Ala Leu Val Ile
 865 870 875 880
 Ala Gln Asn Asn Ile Glu Met Ala Lys Asn Ile Leu Arg Glu Phe Val
 885 890 895
 Ser Ile Ser Ser Pro Ala His Val Ala Thr *
 900 905 906

<210> 1883

<211> 874

<212> PRT

<213> Homo sapiens

<400> 1883

Met Asp Gly Ala Met Gly Pro Arg Gly Leu Leu Met Cys Met Tyr Leu
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 Val Ser Leu Leu Ile Leu Gln Ala Met Pro Ala Leu Gly Ser Ala Thr
 20 25 30
 Gly Arg Ser Lys Ser Ser Glu Lys Arg Gln Ala Val Asp Thr Ala Val
 35 40 45

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Asp Gly Val Phe Ile Arg Ser Leu Lys Val Asn Cys Lys Val Thr Ser
 50          55          60
Arg Phe Ala His Tyr Val Val Thr Ser Gln Val Val Asn Thr Ala Asn
 65          70          75          80
Glu Ala Arg Glu Val Ala Phe Asp Leu Glu Ile Pro Asn Thr Gly Phe
          85          90          95
Ile Ser Asp Phe Ala Val Thr Ala Asp Gly Asn Ala Phe Ile Gly Asp
 100          105          110
Ile Lys Asp Lys Val Thr Ala Trp Lys Gln Tyr Arg Lys Ala Ala Ile
 115          120          125
Ser Gly Glu Asn Ala Gly Leu Val Arg Ala Ser Gly Arg Thr Met Glu
 130          135          140
Gln Phe Ile Ile His Leu Thr Val Asn Pro Gln Ser Lys Val Thr Phe
 145          150          155          160
Gln Leu Thr Tyr Glu Glu Val Leu Lys Arg Asn His Met Gln Tyr Glu
          165          170          175
Ile Val Ile Lys Val Lys Pro Lys Gln Leu Val His His Phe Glu Ile
 180          185          190
Asp Val Asp Ile Phe Glu Pro Gln Gly Ile Ser Lys Leu Asp Ala Gln
 195          200          205
Ala Ser Phe Leu Pro Lys Glu Leu Ala Ala Gln Thr Ile Lys Lys Ser
 210          215          220
Phe Ser Gly Lys Lys Gly His Val Leu Phe Arg Pro Thr Val Ser Gln
 225          230          235          240
Gln Gln Ser Cys Pro Thr Cys Ser Thr Ser Leu Leu Asn Gly His Phe
          245          250          255
Lys Val Thr Tyr Asp Val Ser Arg Asp Lys Ile Cys Asp Leu Leu Val
 260          265          270
Ala Asn Asn His Phe Ala His Phe Phe Ala Pro Gln Asn Leu Thr Asn
 275          280          285
Met Asn Lys Asn Val Val Phe Val Ile Asp Ile Ser Gly Ser Met Arg
 290          295          300
Gly Gln Lys Val Lys Gln Thr Lys Glu Ala Leu Leu Lys Ile Leu Gly
 305          310          315          320
Asp Ile His Pro Gly Asp Tyr Phe Asp Leu Val Leu Phe Gly Thr Arg
          325          330          335
Val Gln Ser Trp Lys Gly Ser Leu Val Gln Ala Ser Glu Ala Asn Leu
 340          345          350
Gln Ala Ala Gln Asp Phe Val Arg Gly Phe Ser Leu Asp Glu Ala Thr
 355          360          365
Asn Leu Asn Gly Gly Leu Leu Arg Gly Ile Glu Ile Leu Asn Gln Val
 370          375          380
Gln Glu Ser Leu Pro Glu Leu Ser Asn His Ala Ser Ile Leu Ile Met
 385          390          395          400
Leu Thr Asp Gly Asp Pro Thr Glu Gly Val Thr Asp Arg Ser Gln Ile
          405          410          415
Leu Lys Asn Val Arg Asn Ala Ile Arg Gly Arg Phe Pro Leu Tyr Asn
 420          425          430
Leu Gly Phe Gly His Asn Val Asp Phe Asn Phe Leu Glu Val Met Ser
 435          440          445
Met Glu Asn Asn Gly Arg Ala Gln Arg Ile Tyr Glu Asp His Asp Ala
 450          455          460
Thr Gln Gln Leu Gln Gly Phe Tyr Ser Gln Val Ala Lys Pro Leu Leu
 465          470          475          480
Val Asp Val Asp Leu Gln Tyr Pro Gln Asp Ala Val Leu Ala Leu Thr
          485          490          495
Gln Asn His His Lys Gln Tyr Tyr Glu Gly Ser Glu Ile Val Val Ala
 500          505          510
Gly Arg Ile Ala Asp Asn Lys Gln Ser Ser Phe Lys Ala Asp Val Gln
 515          520          525
Ala His Gly Glu Gly Gln Glu Phe Ser Ile Thr Cys Leu Val Asp Glu
 530          535          540
Glu Glu Met Lys Lys Leu Leu Arg Glu Arg Gly His Met Leu Glu Asn
 545          550          555          560

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His Val Glu Arg Leu Trp Ala Tyr Leu Thr Ile Gln Glu Leu Leu Ala
 565 570 575
 Lys Arg Met Lys Val Asp Arg Glu Val Arg Ala Asn Leu Ser Ser Gln
 580 585 590
 Ala Leu Arg Met Ser Leu Asp Tyr Gly Phe Val Thr Pro Leu Thr Ser
 595 600 605
 Met Ser Ile Arg Gly Met Ala Asp Gln Asp Gly Leu Lys Pro Thr Ile
 610 615 620
 Asp Lys Pro Ser Glu Asp Ser Pro Pro Leu Glu Met Leu Gly Pro Arg
 625 630 635 640
 Arg Thr Phe Val Leu Ser Ala Leu Gln Pro Ser Pro Thr His Ser Ser
 645 650 655
 Ser Asn Thr Gln Arg Leu Pro Asp Arg Val Thr Gly Gly Phe Ser Val
 660 665 670
 Asn Gly Gln Leu Ile Gly Asn Lys Ala Arg Ser Pro Gly Gln His Asp
 675 680 685
 Gly Thr Tyr Phe Gly Arg Leu Gly Ile Ala Asn Pro Ala Thr Asp Phe
 690 695 700
 Gln Leu Glu Val Thr Pro Gln Asn Ile Thr Leu Asn Pro Gly Phe Gly
 705 710 715 720
 Gly Pro Val Phe Ser Trp Arg Asp Gln Ala Val Leu Arg Gln Asp Gly
 725 730 735
 Val Val Val Thr Ile Asn Lys Lys Arg Asn Leu Val Val Ser Val Asp
 740 745 750
 Asp Gly Gly Thr Phe Glu Val Val Leu His Arg Val Trp Lys Gly Ser
 755 760 765
 Ser Val His Gln Asp Phe Leu Gly Phe Tyr Val Leu Asp Ser His Arg
 770 775 780
 Met Ser Ala Arg Thr His Gly Leu Leu Gly Gln Phe Phe His Pro Ile
 785 790 795 800
 Gly Phe Glu Val Ser Asp Ile His Pro Gly Ser Asp Pro Thr Lys Pro
 805 810 815
 Asp Ala Thr Met Val Val Arg Asn Arg Arg Leu Thr Val Thr Arg Gly
 820 825 830
 Leu Gln Lys Asp Tyr Ser Lys Asp Pro Trp His Gly Ala Glu Val Ser
 835 840 845
 Cys Trp Phe Ile His Asn Asn Gly Ala Gly Leu Ile Asp Gly Ala Tyr
 850 855 860
 Thr Asp Tyr Ile Val Pro Asp Ile Phe *
 865 870 873

<210> 1884

<211> 540

<212> PRT

<213> Homo sapiens

<400> 1884

Met Asn Leu Glu Leu Leu Glu Ser Phe Gly Gln Asn Tyr Pro Glu Glu
 1 5 10 15
 Ala Asp Gly Thr Leu Asp Cys Ile Ser Met Ala Leu Thr Cys Thr Phe
 20 25 30
 Asn Arg Trp Gly Thr Leu Leu Ala Val Gly Cys Asn Asp Gly Arg Ile
 35 40 45
 Val Ile Trp Asp Phe Leu Thr Arg Gly Ile Ala Lys Ile Lys Phe Ser
 50 55 60
 Ala His Ile His Pro Val Cys Ser Leu Cys Trp Ser Arg Asp Gly His
 65 70 75 80
 Lys Leu Val Ser Ala Ser Thr Asp Asn Ile Val Ser Gln Trp Asp Val
 85 90 95
 Leu Ser Gly Asp Cys Asp Gln Arg Phe Arg Phe Pro Ser Pro Ile Leu
 100 105 110

Lys	Val	Gln	Tyr	His	Pro	Arg	Asp	Gln	Asn	Lys	Val	Leu	Val	Cys	Pro	115	120	125
Met	Lys	Ser	Ala	Pro	Val	Met	Leu	Thr	Leu	Ser	Asp	Ser	Lys	His	Val	130	135	140
Val	Leu	Pro	Val	Asp	Asp	Ser	Asp	Leu	Asn	Val	Val	Ala	Ser	Phe		145	150	155
Asp	Arg	Arg	Gly	Glu	Tyr	Ile	Tyr	Thr	Gly	Asn	Ala	Lys	Gly	Lys	Ile	165	170	175
Leu	Val	Leu	Lys	Thr	Asp	Ser	Gln	Asp	Leu	Val	Ala	Ser	Phe	Arg	Val	180	185	190
Thr	Thr	Gly	Thr	Ser	Asn	Thr	Thr	Ala	Ile	Lys	Ser	Ile	Glu	Phe	Ala	195	200	205
Arg	Lys	Gly	Ser	Cys	Phe	Leu	Ile	Asn	Thr	Ala	Asp	Arg	Ile	Ile	Arg	210	215	220
Val	Tyr	Asp	Gly	Arg	Glu	Ile	Leu	Thr	Cys	Gly	Arg	Asp	Gly	Glu	Pro	225	230	235
Glu	Pro	Met	Gln	Glu	Leu	Gln	Asp	Leu	Val	Asn	Arg	Thr	Pro	Trp	Lys	245	250	255
Lys	Cys	Cys	Phe	Ser	Gly	Asp	Gly	Glu	Tyr	Ile	Val	Ala	Gly	Ser	Ala	260	265	270
Arg	Gln	His	Ala	Leu	Tyr	Ile	Trp	Glu	Lys	Ser	Ile	Gly	Asn	Leu	Val	275	280	285
Lys	Ile	Leu	His	Gly	Thr	Arg	Gly	Glu	Leu	Leu	Leu	Asp	Val	Ala	Trp	290	295	300
His	Pro	Val	Arg	Pro	Ile	Ile	Ala	Ser	Ile	Ser	Ser	Gly	Val	Val	Ser	305	310	315
Ile	Trp	Ala	Gln	Asn	Gln	Val	Glu	Asn	Trp	Ser	Ala	Phe	Ala	Pro	Asp	325	330	335
Phe	Lys	Glu	Leu	Asp	Glu	Asn	Val	Glu	Tyr	Glu	Glu	Arg	Glu	Ser	Gly	340	345	350
Phe	Asp	Ile	Glu	Asp	Glu	Asp	Lys	Ser	Glu	Pro	Glu	Gln	Thr	Gly	Ala	355	360	365
Asp	Ala	Ala	Glu	Asp	Glu	Glu	Val	Asp	Val	Thr	Ser	Val	Asp	Pro	Ile	370	375	380
Ala	Ala	Phe	Cys	Ser	Ser	Asp	Glu	Glu	Leu	Glu	Asp	Ser	Lys	Ala	Leu	385	390	395
Leu	Tyr	Leu	Pro	Ile	Ala	Pro	Glu	Val	Glu	Asp	Pro	Glu	Glu	Asn	Pro	405	410	415
Tyr	Gly	Pro	Pro	Pro	Asp	Ala	Val	Gln	Thr	Ser	Leu	Met	Asp	Glu	Gly	420	425	430
Ala	Ser	Ser	Glu	Lys	Lys	Arg	Gln	Ser	Ser	Ala	Asp	Gly	Ser	Gln	Pro	435	440	445
Pro	Lys	Lys	Lys	Pro	Lys	Thr	Thr	Asn	Ile	Glu	Leu	Gln	Gly	Val	Pro	450	455	460
Asn	Asp	Glu	Val	His	Pro	Leu	Leu	Gly	Val	Lys	Gly	Asp	Gly	Lys	Ser	465	470	475
Lys	Lys	Lys	Gln	Ala	Gly	Arg	Pro	Lys	Gly	Ser	Lys	Gly	Lys	Glu	Lys	485	490	495
Asp	Ser	Pro	Phe	Lys	Pro	Lys	Leu	Tyr	Lys	Gly	Asp	Arg	Gly	Leu	Pro	500	505	510
Leu	Glu	Gly	Ser	Ala	Lys	Gly	Lys	Val	Gln	Ala	Glu	Leu	Ser	Gln	Pro	515	520	525
Leu	Thr	Ala	Gly	Gly	Ala	Ile	Ser	Glu	Leu	Leu	*					530	535	539

<210> 1885

<211> 767

<212> PRT

<213> Homo sapiens

<400> 1885

Met	Glu	Glu	Thr	Gln	Gly	Glu	Leu	Thr	Ser	Ser	Cys	Gly	Ser	Lys	Thr
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Met	Ala	Asn	Val	Ser	Leu	Ala	Phe	Arg	Asp	Val	Ser	Ile	Asp	Leu	Ser
		20						25					30		
Gln	Glu	Glu	Trp	Glu	Cys	Leu	Asp	Ala	Val	Gln	Arg	Asp	Leu	Tyr	Lys
		35					40					45			
Asp	Val	Met	Leu	Glu	Asn	Tyr	Ser	Asn	Leu	Val	Ser	Leu	Asp	Leu	Glu
	50					55					60				
Tyr	Lys	Tyr	Ile	Thr	Lys	Asn	Leu	Leu	Ser	Glu	Lys	Asn	Val	Cys	Lys
	65				70					75					80
Ile	Tyr	Leu	Ser	Gln	Leu	Gln	Thr	Gly	Glu	Lys	Ser	Lys	Asn	Thr	Ile
			85					90						95	
His	Glu	Asp	Thr	Ile	Phe	Arg	Asn	Gly	Leu	Gln	Cys	Lys	His	Glu	Phe
			100					105					110		
Glu	Arg	Gln	Glu	Arg	His	Gln	Met	Gly	Cys	Val	Ser	Gln	Met	Leu	Ile
		115					120					125			
Gln	Lys	Gln	Ile	Ser	His	Pro	Leu	His	Pro	Lys	Ile	His	Ala	Arg	Glu
	130					135					140				
Lys	Ser	Tyr	Glu	Cys	Lys	Glu	Cys	Arg	Lys	Ala	Phe	Arg	Gln	Gln	Ser
	145				150					155					160
Tyr	Leu	Ile	Gln	His	Leu	Arg	Ile	His	Thr	Gly	Glu	Arg	Pro	Tyr	Lys
			165					170					175		
Cys	Met	Glu	Cys	Gly	Lys	Ala	Phe	Cys	Arg	Val	Gly	Asp	Leu	Arg	Val
		180						185					190		
His	His	Thr	Ile	His	Ala	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Lys	Glu	Cys
		195					200					205			
Gly	Lys	Ala	Phe	Arg	Leu	His	Tyr	His	Leu	Thr	Glu	His	Gln	Arg	Ile
	210					215					220				
His	Ser	Gly	Val	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe
	225				230					235					240
Ser	Arg	Val	Arg	Asp	Leu	Arg	Val	His	Gln	Thr	Ile	His	Ala	Gly	Glu
			245					250					255		
Arg	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Arg	Leu	His	Tyr
		260						265					270		
Gln	Leu	Thr	Glu	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu
		275					280					285			
Cys	Lys	Val	Cys	Gly	Lys	Thr	Phe	Arg	Val	Gln	Arg	His	Ile	Ser	Gln
	290					295					300				
His	Gln	Lys	Ile	His	Thr	Gly	Val	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys
	305				310					315					320
Gly	Lys	Ala	Phe	Ser	His	Gly	Ser	Tyr	Leu	Val	Gln	His	Gln	Lys	Ile
			325					330					335		
His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ser	Phe
		340						345					350		
Ser	Phe	His	Ala	Glu	Leu	Ala	Arg	His	Arg	Arg	Ile	His	Thr	Gly	Glu
		355					360					365			
Lys	Pro	Tyr	Glu	Cys	Arg	Glu	Cys	Gly	Lys	Ala	Phe	Arg	Leu	Gln	Thr
	370					375					380				
Glu	Leu	Thr	Arg	His	His	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu
	385				390					395					400
Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Ile	Cys	Gly	Tyr	Gln	Leu	Thr	Leu
			405					410					415		
His	Leu	Arg	Thr	His	Thr	Gly	Glu	Ile	Pro	Tyr	Glu	Cys	Lys	Glu	Cys
			420					425					430		
Gly	Lys	Thr	Phe	Ser	Ser	Arg	Tyr	His	Leu	Thr	Gln	His	Tyr	Arg	Ile
		435					440					445			
His	Thr	Gly	Glu	Lys	Pro	Tyr	Ile	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe
	450					455					460				
Arg	Leu	Gln	Gly	Glu	Leu	Thr	Arg	His	His	Arg	Ile	His	Thr	Cys	Glu
	465				470					475					480
Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ala	Phe	Ile	His	Ser	Asn
			485					490					495		
Gln	Phe	Ile	Ser	His	Gln	Arg	Ile	His	Thr	Ser	Glu	Ser	Thr	Tyr	Ile
			500					505					510		

Cys Lys Glu Cys Gly Lys Ile Phe Ser Arg Arg Tyr Asn Leu Thr Gln
 515 520 525
 His Phe Lys Ile His Thr Gly Glu Lys Pro Tyr Ile Cys Asn Glu Cys
 530 535 540
 Gly Lys Ala Phe Arg Phe Gln Thr Glu Leu Thr Gln His His Arg Ile
 545 550 555 560
 His Thr Gly Glu Lys Pro Tyr Lys Cys Thr Glu Cys Gly Lys Ala Phe
 565 570 575
 Ile Arg Ser Thr His Leu Thr Gln His His Arg Ile His Thr Gly Glu
 580 585 590
 Lys Pro Tyr Glu Cys Thr Glu Cys Gly Lys Thr Phe Ser Arg His Tyr
 595 600 605
 His Leu Thr Gln His His Arg Gly His Thr Gly Glu Lys Pro Tyr Ile
 610 615 620
 Cys Asn Glu Cys Gly Asn Ala Phe Ile Cys Ser Tyr Arg Leu Thr Leu
 625 630 635 640
 His Gln Arg Ile His Thr Gly Glu Leu Pro Tyr Glu Cys Lys Glu Cys
 645 650 655
 Gly Lys Thr Phe Ser Arg Arg Tyr His Leu Thr Gln His Phe Arg Leu
 660 665 670
 His Thr Gly Glu Lys Pro Tyr Ser Cys Lys Glu Cys Gly Asn Ala Phe
 675 680 685
 Arg Leu Gln Ala Glu Leu Thr Arg His His Ile Val His Thr Gly Glu
 690 695 700
 Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Ser Val Asn Ser
 705 710 715 720
 Glu Leu Thr Arg His His Arg Ile His Thr Gly Glu Lys Pro Tyr Gln
 725 730 735
 Cys Lys Glu Cys Gly Lys Ala Phe Ile Arg Ser Asp Gln Leu Thr Leu
 740 745 750
 His Gln Arg Asn His Ile Ser Glu Glu Val Leu Cys Ile Met *
 755 760 765 766

<210> 1886

<211> 177

<212> PRT

<213> Homo sapiens

<400> 1886

Met Glu Pro Gly Ser Lys Trp Arg Arg Asn Pro Ser Asp Val Ser Asp
 1 5 10 15
 Glu Ser Asp Lys Ser Thr Ser Gly Lys Lys Asn Pro Val Ile Ser Gln
 20 25 30
 Thr Gly Ser Trp Arg Arg Gly Met Thr Ala Gln Val Gly Ile Thr Met
 35 40 45
 Pro Arg Thr Lys Ala Ser Ala Pro Ala Gly Ala Leu Lys Thr Pro Gly
 50 55 60
 Thr Gly Lys Arg Pro Gly Leu Ser Trp Pro Trp Gly Thr Asn Ala Ser
 65 70 75 80
 Ser Ser Ser Ala Val Ser Lys Asp Gly Leu Gly Phe Gln Ser Val Ser
 85 90 95
 Ser Leu His Thr Ser Cys Glu Ser Ile Asp Ile Ser Leu Ser Ser Gly
 100 105 110
 Gly Val Pro Ser His Asn Ser Ser Thr Gly Leu Ile Ala Ser Ser Lys
 115 120 125
 Asp Asp Ser Leu Thr Pro Phe Val Arg Thr Asn Ser Val Lys Thr Thr
 130 135 140
 Leu Ser Glu Arg Leu Val Leu Cys Leu Trp Leu Pro Phe Ser Glu Arg
 145 150 155 160
 His Pro Ser Lys Asn Lys Lys Ile Ser Leu Gly Ile Pro Asn Val Glu
 165 170 175 176

*

<210> 1887
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 1887
 Met Thr Ser Arg Ser Thr Ala Arg Pro Asn Gly Gln Pro Gln Ala Ser
 1 5 10 15
 Lys Ile Cys Gln Phe Lys Leu Val Leu Leu Gly Glu Ser Ala Val Gly
 20 25 30
 Lys Ser Ser Leu Val Leu Arg Phe Val Lys Gly Gln Phe His Glu Tyr
 35 40 45
 Gln Glu Ser Thr Ile Gly Ala Ala Phe Leu Thr Gln Ser Val Cys Leu
 50 55 60
 Asp Asp Thr Thr Val Lys Phe Glu Ile Trp Asp Thr Ala Gly Gln Glu
 65 70 75 80
 Arg Tyr His Ser Leu Ala Pro Met Tyr Tyr Arg Gly Ala Gln Ala Ala
 85 90 95
 Ile Val Val Tyr Asp Ile Thr Asn Gln Glu Thr Phe Ala Arg Ala Lys
 100 105 110
 Thr Trp Val Lys Glu Leu Gln Arg Gln Ala Ser Pro Ser Ile Val Ile
 115 120 125
 Ala Leu Ala Gly Asn Lys Ala Asp Leu Ala Asn Lys Arg Met Val Glu
 130 135 140
 Tyr Glu Glu Ala Gln Ala Tyr Ala Asp Asp Asn Ser Leu Leu Phe Met
 145 150 155 160
 Glu Thr Ser Ala Lys Thr Ala Met Asn Val Asn Asp Leu Phe Leu Ala
 165 170 175
 Ile Ala Lys Lys Leu Pro Lys Ser Glu Pro Gln Asn Leu Gly Gly Ala
 180 185 190
 Ala Gly Arg Ser Arg Gly Val Asp Leu His Glu Gln Ser Gln Gln Asn
 195 200 205
 Lys Ser Gln Cys Cys Ser Asn *
 210 215

<210> 1888
 <211> 798
 <212> PRT
 <213> Homo sapiens

<400> 1888
 Met Gln Asp Gly Asn Phe Leu Leu Ser Ala Leu Gln Pro Glu Ala Gly
 1 5 10 15
 Val Cys Ser Leu Ala Leu Pro Ser Asp Leu Gln Leu Asp Arg Arg Gly
 20 25 30
 Ala Glu Gly Pro Glu Ala Glu Arg Leu Arg Ala Ala Arg Val Gln Glu
 35 40 45
 Gln Val Arg Ala Arg Leu Leu Gln Leu Gly Gln Gln Pro Arg His Asn
 50 55 60
 Gly Ala Ala Glu Pro Glu Pro Glu Ala Glu Thr Ala Arg Gly Thr Ser
 65 70 75 80
 Arg Gly Gln Tyr His Thr Leu Gln Ala Gly Phe Ser Ser Arg Ser Gln
 85 90 95
 Gly Leu Ser Gly Asp Lys Thr Ser Gly Phe Arg Pro Ile Ala Lys Pro
 100 105 110

Ala	Tyr	Ser	Pro	Ala	Ser	Trp	Ser	Ser	Arg	Ser	Ala	Val	Asp	Leu	Ser	115	120	125
Cys	Ser	Arg	Arg	Leu	Ser	Ser	Ala	His	Asn	Gly	Gly	Ser	Ala	Phe	Gly	130	135	140
Ala	Ala	Gly	Tyr	Gly	Gly	Ala	Gln	Pro	Thr	Pro	Pro	Met	Pro	Thr	Arg	145	150	155
Pro	Val	Ser	Phe	His	Glu	Arg	Gly	Gly	Val	Gly	Ser	Arg	Ala	Asp	Tyr	165	170	175
Asp	Thr	Leu	Ser	Leu	Arg	Ser	Leu	Arg	Leu	Gly	Pro	Gly	Gly	Leu	Asp	180	185	190
Asp	Arg	Tyr	Ser	Leu	Val	Ser	Glu	Gln	Leu	Glu	Pro	Ala	Ala	Thr	Ser	195	200	205
Thr	Tyr	Arg	Ala	Phe	Ala	Tyr	Glu	Arg	Gln	Ala	Ser	Ser	Ser	Ser	Ser	210	215	220
Arg	Ala	Gly	Gly	Leu	Asp	Trp	Pro	Glu	Ala	Thr	Glu	Val	Ser	Pro	Ser	225	230	235
Arg	Thr	Ile	Arg	Ala	Pro	Ala	Val	Arg	Thr	Leu	Gln	Arg	Phe	Gln	Ser	245	250	255
Ser	His	Arg	Ser	Arg	Gly	Val	Gly	Gly	Ala	Val	Pro	Gly	Ala	Val	Leu	260	265	270
Glu	Pro	Val	Ala	Arg	Ala	Pro	Ser	Val	Arg	Ser	Leu	Ser	Leu	Ser	Leu	275	280	285
Ala	Asp	Ser	Gly	His	Leu	Pro	Asp	Val	His	Gly	Phe	Asn	Ser	Tyr	Gly	290	295	300
Ser	His	Arg	Thr	Leu	Gln	Arg	Leu	Ser	Ser	Gly	Phe	Asp	Asp	Ile	Asp	305	310	315
Leu	Pro	Ser	Ala	Val	Lys	Tyr	Leu	Met	Ala	Ser	Asp	Pro	Asn	Leu	Gln	325	330	335
Val	Leu	Gly	Ala	Ala	Tyr	Ile	Gln	His	Lys	Cys	Tyr	Ser	Asp	Ala	Ala	340	345	350
Ala	Lys	Lys	Gln	Ala	Arg	Ser	Leu	Gln	Ala	Val	Pro	Arg	Leu	Val	Lys	355	360	365
Leu	Phe	Asn	His	Ala	Asn	Gln	Glu	Val	Gln	Arg	His	Ala	Thr	Gly	Ala	370	375	380
Met	Arg	Asn	Leu	Ile	Tyr	Asp	Asn	Ala	Asp	Asn	Lys	Leu	Ala	Leu	Val	385	390	395
Glu	Glu	Asn	Gly	Ile	Phe	Glu	Leu	Leu	Arg	Thr	Leu	Arg	Glu	Gln	Asp	405	410	415
Asp	Glu	Leu	Arg	Lys	Asn	Val	Thr	Gly	Ile	Leu	Trp	Asn	Leu	Ser	Ser	420	425	430
Ser	Asp	His	Leu	Lys	Asp	Arg	Leu	Ala	Arg	Asp	Thr	Leu	Glu	Gln	Leu	435	440	445
Thr	Asp	Leu	Val	Leu	Ser	Pro	Leu	Ser	Gly	Ala	Gly	Pro	Pro	Leu		450	455	460
Ile	Gln	Gln	Asn	Ala	Ser	Glu	Ala	Glu	Ile	Phe	Tyr	Asn	Ala	Thr	Gly	465	470	475
Phe	Leu	Arg	Asn	Leu	Ser	Ser	Ala	Ser	Gln	Ala	Thr	Arg	Gln	Lys	Met	485	490	495
Arg	Glu	Cys	His	Gly	Leu	Val	Asp	Ala	Leu	Val	Thr	Ser	Ile	Asn	His	500	505	510
Ala	Leu	Asp	Ala	Gly	Lys	Cys	Glu	Asp	Lys	Ser	Val	Glu	Asn	Ala	Val	515	520	525
Cys	Val	Leu	Arg	Asn	Leu	Ser	Tyr	Arg	Leu	Tyr	Asp	Glu	Met	Pro	Pro	530	535	540
Ser	Ala	Leu	Gln	Arg	Leu	Glu	Gly	Arg	Gly	Arg	Asp	Leu	Ala	Gly		545	550	555
Ala	Pro	Pro	Gly	Glu	Val	Val	Gly	Cys	Phe	Thr	Pro	Gln	Ser	Arg	Arg	565	570	575
Leu	Arg	Glu	Leu	Pro	Leu	Ala	Ala	Asp	Ala	Leu	Thr	Phe	Ala	Glu	Val	580	585	590
Ser	Lys	Asp	Pro	Lys	Gly	Leu	Glu	Trp	Leu	Trp	Ser	Pro	Gln	Ile	Val	595	600	605
Gly	Leu	Tyr	Asn	Arg	Leu	Leu	Gln	Arg	Cys	Glu	Leu	Asn	Arg	His	Thr	610	615	620

Thr Glu Ala Ala Ala Gly Ala Leu Gln Asn Ile Thr Ala Gly Asp Arg
 625 630 635 640
 Arg Trp Ala Gly Val Leu Ser Arg Leu Ala Leu Glu Gln Glu Arg Ile
 645 650 655
 Leu Asn Pro Leu Leu Asp Arg Val Arg Thr Ala Asp His His Gln Leu
 660 665 670
 Arg Ser Leu Thr Gly Leu Ile Arg Asn Leu Ser Arg Asn Ala Arg Asn
 675 680 685
 Lys Asp Glu Met Ser Thr Lys Val Val Ser His Leu Ile Glu Lys Leu
 690 695 700
 Pro Gly Ser Val Gly Glu Lys Ser Pro Pro Ala Glu Val Leu Val Asn
 705 710 715 720
 Ile Ile Ala Val Leu Asn Asn Leu Val Val Ala Ser Pro Ile Ala Ala
 725 730 735
 Arg Asp Leu Leu Tyr Phe Asp Gly Leu Arg Lys Leu Ile Phe Ile Lys
 740 745 750
 Lys Lys Arg Asp Ser Pro Asp Ser Glu Lys Ser Ser Arg Ala Ala Ser
 755 760 765
 Ser Leu Leu Ala Asn Leu Trp Gln Tyr Asn Lys Leu His Arg Asp Phe
 770 775 780
 Arg Ala Lys Gly Tyr Arg Lys Glu Asp Phe Leu Gly Pro *
 785 790 795 797

<210> 1889
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 1889
 Met Glu Lys Arg Glu Leu Lys Ala Ser Val Pro Lys Phe Asp Lys Ile
 1 5 10 15
 Pro Trp Leu Ser Glu Ala Ser Leu Val Asn Lys Pro Leu Val Leu Ser
 20 25 30
 Leu Pro Arg Arg Tyr Pro His Thr Ser Ala Thr Phe Leu Thr Ser Ser
 35 40 45
 Lys Lys Asn Met Asn Leu Pro Ile Leu Phe Gln Val Pro Asp Val Leu
 50 55 60
 Ser Lys Ala Arg Arg Asn Gln Cys Asp Ser Met Leu Leu Arg Asn Gln
 65 70 75 80
 Gln Leu Cys Ser Thr Cys Gln Glu Met Lys Met Val Gln Pro Arg Thr
 85 90 95
 Met Lys Ile Pro Asp Asp Pro Lys Ala Ser Phe Glu Asn Cys Met Ser
 100 105 110
 Tyr Arg Met Ser Leu His Gln Pro Lys Phe Gln Thr Thr Pro Glu Pro
 115 120 125
 Phe His Asp Asp Ile Pro Thr Glu Asn Ile His Tyr Arg Leu Pro Ile
 130 135 140
 Leu Gly Pro Arg Thr Ala Val Phe His Gly Leu Leu Thr Glu Ala Tyr
 145 150 155 160
 Lys Thr Leu Lys Glu Arg Gln Arg Ser Ser Leu Pro Arg Lys Glu Pro
 165 170 175
 Ile Gly Lys Thr Thr Arg Gln *
 180 183

<210> 1890
 <211> 1069
 <212> PRT
 <213> Homo sapiens

<400> 1890

Met	Ala	Pro	Arg	Lys	Arg	Gly	Gly	Arg	Gly	Ile	Ser	Phe	Ile	Phe	Cys
1				5					10					15	
Cys	Phe	Arg	Asn	Asp	His	Pro	Glu	Ile	Thr	Tyr	Arg	Leu	Arg	Asn	
			20				25					30			
Asp	Ser	Asn	Phe	Ala	Leu	Gln	Thr	Met	Glu	Pro	Ala	Leu	Pro	Met	Pro
		35					40					45			
Pro	Val	Glu	Glu	Leu	Asp	Val	Met	Phe	Ser	Glu	Leu	Val	Asp	Glu	Leu
		50				55					60				
Asp	Leu	Thr	Asp	Lys	His	Arg	Glu	Ala	Met	Phe	Ala	Leu	Pro	Ala	Glu
	65				70					75					80
Lys	Lys	Trp	Gln	Ile	Tyr	Cys	Ser	Lys	Lys	Lys	Asp	Gln	Glu	Glu	Asn
			85						90					95	
Lys	Gly	Ala	Thr	Ser	Trp	Pro	Glu	Phe	Tyr	Ile	Asp	Gln	Leu	Asn	Ser
			100					105					110		
Met	Ala	Ala	Arg	Lys	Ser	Leu	Leu	Ala	Leu	Glu	Lys	Glu	Glu	Glu	Glu
		115					120					125			
Glu	Arg	Ser	Lys	Thr	Ile	Glu	Ser	Leu	Lys	Thr	Ala	Leu	Arg	Thr	Lys
	130					135						140			
Pro	Met	Arg	Phe	Val	Thr	Arg	Phe	Ile	Asp	Leu	Asp	Gly	Leu	Ser	Cys
	145				150					155					160
Ile	Leu	Asn	Phe	Leu	Lys	Thr	Met	Asp	Tyr	Glu	Thr	Ser	Glu	Ser	Arg
			165						170					175	
Ile	His	Thr	Ser	Leu	Ile	Gly	Cys	Ile	Lys	Ala	Leu	Met	Asn	Asn	Ser
		180					185						190		
Gln	Gly	Arg	Ala	His	Val	Leu	Ala	His	Ser	Glu	Ser	Ile	Asn	Val	Ile
		195					200					205			
Ala	Gln	Ser	Leu	Ser	Thr	Glu	Asn	Ile	Lys	Thr	Lys	Val	Ala	Val	Leu
	210					215						220			
Glu	Ile	Leu	Gly	Ala	Val	Cys	Leu	Val	Pro	Gly	Gly	His	Lys	Lys	Val
	225				230					235					240
Leu	Gln	Ala	Met	Leu	His	Tyr	Gln	Lys	Tyr	Ala	Ser	Glu	Arg	Thr	Arg
			245						250					255	
Phe	Gln	Thr	Leu	Ile	Asn	Asp	Leu	Asp	Lys	Ser	Thr	Gly	Arg	Tyr	Arg
		260					265						270		
Asp	Glu	Val	Ser	Leu	Lys	Thr	Ala	Ile	Met	Ser	Phe	Ile	Asn	Ala	Val
		275					280					285			
Leu	Ser	Gln	Gly	Ala	Gly	Val	Glu	Ser	Leu	Asp	Phe	Arg	Leu	His	Leu
	290					295					300				
Arg	Tyr	Glu	Phe	Leu	Met	Leu	Gly	Ile	Gln	Pro	Val	Ile	Asp	Lys	Leu
	305				310					315					320
Arg	Glu	His	Glu	Asn	Ser	Thr	Leu	Asp	Arg	His	Leu	Asp	Phe	Phe	Glu
			325						330					335	
Met	Leu	Arg	Asn	Glu	Asp	Glu	Leu	Glu	Phe	Ala	Lys	Arg	Phe	Glu	Leu
		340						345					350		
Val	His	Ile	Asp	Thr	Lys	Ser	Ala	Thr	Gln	Met	Phe	Glu	Leu	Thr	Arg
		355					360					365			
Lys	Arg	Leu	Thr	His	Ser	Glu	Ala	Tyr	Pro	His	Phe	Met	Ser	Ile	Leu
	370					375					380				
His	His	Cys	Leu	Gln	Met	Pro	Tyr	Lys	Arg	Ser	Gly	Asn	Thr	Val	Gln
	385				390					395					400
Tyr	Trp	Leu	Leu	Leu	Asp	Arg	Ile	Ile	Gln	Gln	Ile	Val	Ile	Gln	Asn
			405						410					415	
Asp	Lys	Gly	Gln	Asp	Pro	Asp	Ser	Thr	Pro	Leu	Glu	Asn	Phe	Asn	Ile
			420					425					430		
Lys	Asn	Val	Val	Arg	Met	Leu	Val	Asn	Glu	Asn	Glu	Val	Lys	Gln	Trp
		435					440					445			
Lys	Glu	Gln	Ala	Glu	Lys	Met	Arg	Lys	Glu	His	Asn	Glu	Leu	Gln	Gln
	450					455					460				
Lys	Leu	Glu	Lys	Lys	Glu	Arg	Glu	Cys	Asp	Ala	Lys	Thr	Gln	Glu	Lys
	465				470					475					480
Glu	Glu	Met	Met	Gln	Thr	Leu	Asn	Lys	Met	Lys	Glu	Lys	Leu	Glu	Lys
			485						490						495

Glu	Thr	Thr	Glu	His	Lys	Gln	Val	Lys	Gln	Gln	Val	Ala	Asp	Leu	Thr
			500					505					510		
Ala	Gln	Leu	His	Glu	Leu	Ser	Arg	Arg	Ala	Val	Cys	Ala	Ser	Ile	Pro
		515					520					525			
Gly	Gly	Pro	Ser	Pro	Gly	Ala	Pro	Gly	Gly	Pro	Phe	Pro	Ser	Ser	Val
	530					535					540				
Pro	Gly	Ser	Leu	Leu	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Gly	Gly
545					550					555					560
Met	Leu	Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro	Gly	Gly	Pro	Pro	Pro
			565						570						575
Pro	Pro	Gly	Pro	Pro	Pro	Leu	Gly	Ala	Ile	Met	Pro	Pro	Pro	Gly	Ala
		580						585							590
Pro	Met	Gly	Leu	Ala	Leu	Lys	Lys	Lys	Ser	Ile	Pro	Gln	Pro	Thr	Asn
	595					600						605			
Ala	Leu	Lys	Ser	Phe	Asn	Trp	Ser	Lys	Leu	Pro	Glu	Asn	Lys	Leu	Glu
	610				615						620				
Gly	Thr	Val	Trp	Thr	Glu	Ile	Asp	Asp	Thr	Lys	Val	Phe	Lys	Ile	Leu
625					630					635					640
Asp	Leu	Glu	Asp	Leu	Glu	Arg	Thr	Phe	Ser	Ala	Tyr	Gln	Arg	Gln	Gln
			645						650						655
Lys	Glu	Ala	Asp	Ala	Ile	Asp	Asp	Thr	Leu	Ser	Ser	Lys	Leu	Lys	Val
		660						665							670
Lys	Glu	Leu	Ser	Val	Ile	Asp	Gly	Arg	Arg	Ala	Gln	Asn	Cys	Asn	Ile
	675						680					685			
Leu	Leu	Ser	Arg	Leu	Lys	Leu	Ser	Asn	Asp	Glu	Ile	Lys	Arg	Ala	Ile
	690				695						700				
Leu	Thr	Met	Asp	Glu	Gln	Glu	Asp	Leu	Pro	Lys	Asp	Met	Leu	Glu	Gln
705					710					715					720
Leu	Leu	Lys	Phe	Val	Pro	Glu	Lys	Ser	Asp	Ile	Asp	Leu	Leu	Glu	Glu
			725						730						735
His	Lys	His	Glu	Leu	Asp	Arg	Met	Ala	Lys	Ala	Asp	Arg	Phe	Leu	Phe
		740						745					750		
Glu	Met	Ser	Arg	Ile	Asn	His	Tyr	Gln	Gln	Arg	Leu	Gln	Ser	Leu	Tyr
	755					760						765			
Phe	Lys	Lys	Lys	Phe	Ala	Glu	Arg	Val	Ala	Glu	Val	Lys	Pro	Lys	Val
	770					775					780				
Glu	Ala	Ile	Arg	Ser	Gly	Ser	Glu	Glu	Val	Phe	Arg	Ser	Gly	Ala	Leu
785					790					795					800
Lys	Gln	Leu	Leu	Glu	Val	Val	Leu	Ala	Phe	Gly	Asn	Tyr	Met	Asn	Lys
			805						810						815
Gly	Gln	Arg	Gly	Asn	Ala	Tyr	Gly	Phe	Lys	Ile	Ser	Ser	Leu	Asn	Lys
		820						825							830
Ile	Ala	Asp	Thr	Lys	Ser	Ser	Ile	Asp	Lys	Asn	Ile	Thr	Leu	Leu	His
	835						840					845			
Tyr	Leu	Ile	Thr	Ile	Val	Glu	Asn	Lys	Tyr	Pro	Ser	Val	Leu	Asn	Leu
	850					855					860				
Asn	Glu	Glu	Leu	Arg	Asp	Ile	Pro	Gln	Ala	Ala	Lys	Val	Asn	Met	Thr
865					870					875					880
Glu	Leu	Asp	Lys	Glu	Ile	Ser	Thr	Leu	Arg	Ser	Gly	Leu	Lys	Ala	Val
			885						890						895
Glu	Thr	Glu	Leu	Glu	Tyr	Gln	Lys	Ser	Gln	Pro	Pro	Gln	Pro	Gly	Asp
		900						905							910
Lys	Phe	Val	Ser	Val	Val	Ser	Gln	Phe	Ile	Thr	Val	Ala	Ser	Phe	Ser
	915						920					925			
Phe	Ser	Asp	Val	Glu	Asp	Leu	Leu	Ala	Glu	Ala	Lys	Asp	Leu	Phe	Thr
	930					935					940				
Lys	Ala	Val	Lys	His	Phe	Gly	Glu	Glu	Ala	Gly	Lys	Ile	Gln	Pro	Asp
945					950					955					960
Glu	Phe	Phe	Gly	Ile	Phe	Asp	Gln	Phe	Leu	Gln	Ala	Val	Ser	Glu	Ala
			965						970						975
Lys	Gln	Glu	Asn	Glu	Asn	Met	Arg	Lys	Lys	Lys	Glu	Glu	Glu	Glu	Arg
			980					985							990
Arg	Ala	Arg	Met	Glu	Ala	Gln	Leu	Lys	Glu	Gln	Arg	Glu	Arg	Glu	Arg
		995					1000								1005

Lys Met Arg Lys Ala Lys Glu Asn Ser Glu Glu Ser Gly Glu Phe Asp
 1010 1015 1020
 Asp Leu Val Ser Ala Leu Arg Ser Gly Glu Val Phe Asp Lys Asp Leu
 1025 1030 1035 1040
 Ser Lys Leu Lys Arg Asn Arg Lys Arg Ile Thr Asn Gln Met Thr Asp
 1045 1050 1055
 Ser Ser Arg Glu Arg Pro Ile Thr Lys Leu Asn Phe *
 1060 1065 1068

<210> 1891
 <211> 521
 <212> PRT
 <213> Homo sapiens

<400> 1891
 Met Ser Leu Glu Gly Pro Ala Gln Pro Gln Tyr Ser Pro Val Gln Ala
 1 5 10 15
 Thr Phe Glu Val Leu Asp Phe Ile Thr His Leu Tyr Ala Gly Ala Asp
 20 25 30
 Val His Arg His Leu Asp Val Arg Ile Leu Leu Thr Asn Ile Arg Thr
 35 40 45
 Lys Ser Thr Phe Leu Pro Pro Leu Pro Thr Ser Val Gln Asn Leu Ala
 50 55 60
 His Pro Pro Glu Val Val Leu Thr Asp Phe Gln Thr Leu Asp Gly Ser
 65 70 75 80
 Gln Tyr Asn Pro Val Lys Gln Gln Leu Val Arg Tyr Ala Thr Ser Cys
 85 90 95
 Tyr Ser Cys Cys Pro Arg Leu Ala Ser Val Leu Leu Tyr Ser Asp Tyr
 100 105 110
 Gly Ile Gly Glu Val Pro Val Glu Pro Leu Asp Val Pro Leu Pro Ser
 115 120 125
 Thr Ile Arg Pro Ala Ser Pro Val Ala Gly Ser Pro Lys Gln Pro Val
 130 135 140
 Arg Gly Tyr Tyr Arg Gly Ala Val Gly Gly Thr Phe Asp Arg Leu His
 145 150 155 160
 Asn Ala His Lys Val Leu Leu Ser Val Ala Cys Ile Leu Ala Gln Glu
 165 170 175
 Gln Leu Val Val Gly Val Ala Asp Lys Asp Leu Leu Lys Ser Lys Leu
 180 185 190
 Leu Pro Glu Leu Leu Gln Pro Tyr Thr Glu Arg Val Glu His Leu Ser
 195 200 205
 Glu Phe Leu Val Asp Ile Lys Pro Ser Leu Thr Phe Asp Val Ile Pro
 210 215 220
 Leu Leu Asp Pro Tyr Gly Pro Ala Gly Ser Asp Pro Ser Leu Glu Phe
 225 230 235 240
 Leu Val Val Ser Glu Glu Thr Tyr Arg Gly Gly Met Ala Ile Asn Arg
 245 250 255
 Phe Arg Leu Glu Asn Asp Leu Glu Glu Leu Ala Leu Tyr Gln Ile Gln
 260 265 270
 Leu Leu Lys Asp Leu Arg His Thr Glu Asn Glu Glu Asp Lys Val Ser
 275 280 285
 Ser Ser Ser Phe Arg Gln Arg Met Leu Gly Asn Leu Leu Arg Pro Pro
 290 295 300
 Tyr Glu Arg Pro Glu Leu Pro Thr Cys Leu Tyr Val Ile Gly Leu Thr
 305 310 315 320
 Gly Ile Ser Gly Ser Gly Lys Ser Ser Ile Ala Gln Arg Leu Lys Gly
 325 330 335
 Leu Gly Ala Phe Val Ile Asp Ser Asp His Leu Gly His Arg Ala Tyr
 340 345 350
 Ala Pro Gly Gly Pro Ala Tyr Gln Pro Val Val Glu Ala Phe Gly Thr
 355 360 365

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Asp Ile Leu His Lys Asp Gly Ile Ile Asn Arg Lys Val Leu Gly Ser
  370                               375                 380
Arg Val Phe Gly Asn Lys Lys Gln Leu Lys Ile Leu Thr Asp Ile Met
 385                               390                 395                 400
Trp Pro Ile Ile Ala Lys Leu Ala Arg Glu Glu Met Asp Arg Ala Val
                               405                 410                 415
Ala Glu Gly Lys Arg Val Cys Val Ile Asp Ala Ala Val Leu Leu Glu
                               420                 425                 430
Ala Gly Trp Gln Asn Leu Val His Glu Val Trp Thr Ala Val Ile Pro
                               435                 440                 445
Glu Thr Glu Ala Val Arg Arg Ile Val Glu Arg Asp Gly Leu Ser Glu
 450                               455                 460
Ala Ala Ala Gln Ser Arg Leu Gln Ser Gln Met Ser Gly Gln Gln Leu
 465                               470                 475                 480
Val Glu Gln Ser His Val Val Leu Ser Thr Leu Trp Glu Pro His Ile
                               485                 490                 495
Thr Gln Arg Gln Val Glu Lys Ala Trp Ala Leu Leu Gln Lys Arg Ile
                               500                 505                 510
Pro Lys Thr His Gln Ala Leu Asp *
 515                               520

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<210> 1892
 <211> 1331
 <212> PRT
 <213> Homo sapiens

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<400> 1892
Met Glu Asp Gly Gly Leu Thr Ala Phe Glu Glu Asp Gln Arg Cys Leu
  1                               5                 10                 15
Ser Gln Ser Leu Pro Leu Pro Val Ser Ala Glu Gly Pro Ala Ala Gln
 20                               25                 30
Thr Thr Ala Glu Pro Ser Arg Ser Phe Ser Ser Ala His Arg His Leu
 35                               40                 45
Ser Arg Arg Asn Gly Leu Ser Arg Leu Cys Gln Ser Arg Thr Ala Leu
 50                               55                 60
Ser Glu Asp Arg Trp Ser Ser Tyr Cys Leu Ser Ser Leu Ala Ala Gln
 65                               70                 75                 80
Asn Ile Cys Thr Ser Lys Leu His Cys Pro Ala Ala Pro Glu His Thr
 85                               90                 95
Asp Pro Ser Glu Pro Arg Gly Ser Val Ser Cys Cys Ser Leu Leu Arg
100                               105                 110
Gly Leu Ser Ser Gly Trp Ser Ser Pro Leu Leu Pro Ala Pro Val Cys
115                               120                 125
Asn Pro Asn Lys Ala Ile Phe Thr Val Asp Ala Lys Thr Thr Glu Ile
130                               135                 140
Leu Val Ala Asn Asp Lys Ala Cys Gly Leu Leu Gly Tyr Ser Ser Gln
145                               150                 155                 160
Asp Leu Ile Gly Gln Lys Leu Thr Gln Phe Phe Leu Arg Ser Asp Ser
165                               170                 175
Asp Val Val Glu Ala Leu Ser Glu Glu His Met Glu Ala Asp Gly His
180                               185                 190
Ala Ala Val Val Phe Gly Thr Val Val Asp Ile Ile Ser Arg Ser Gly
195                               200                 205
Glu Lys Ile Pro Val Ser Val Trp Met Lys Arg Met Arg Gln Glu Arg
210                               215                 220
Arg Leu Cys Cys Val Val Val Leu Glu Pro Val Glu Arg Val Ser Thr
225                               230                 235                 240
Trp Val Ala Phe Gln Ser Asp Gly Thr Val Thr Ser Cys Asp Ser Leu
245                               250                 255
Phe Ala His Leu His Gly Tyr Val Ser Gly Glu Asp Val Ala Gly Gln
260                               265                 270

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His Ile Thr Asp Leu Ile Pro Ser Val Gln Leu Pro Pro Ser Gly Gln
 275 280 285
 His Ile Pro Lys Asn Leu Lys Ile Gln Arg Ser Val Gly Arg Ala Arg
 290 295 300
 Asp Gly Thr Thr Phe Pro Leu Ser Leu Lys Leu Lys Ser Gln Pro Ser
 305 310 315 320
 Ser Glu Glu Ala Thr Thr Gly Glu Ala Ala Pro Val Ser Gly Tyr Arg
 325 330 335
 Ala Ser Val Trp Val Phe Cys Thr Ile Ser Gly Leu Ile Thr Leu Leu
 340 345 350
 Pro Asp Gly Thr Ile His Gly Ile Asn His Ser Phe Ala Leu Thr Leu
 355 360 365
 Phe Gly Tyr Gly Lys Thr Glu Leu Leu Gly Lys Asn Ile Thr Phe Leu
 370 375 380
 Ile Pro Gly Phe Tyr Ser Tyr Met Asp Leu Ala Tyr Asn Ser Ser Leu
 385 390 395 400
 Gln Leu Pro Asp Leu Ala Ser Cys Leu Asp Val Gly Asn Glu Ser Gly
 405 410 415
 Cys Gly Glu Arg Thr Leu Asp Pro Trp Gln Gly Gln Asp Pro Ala Glu
 420 425 430
 Gly Gly Gln Asp Pro Arg Ile Asn Val Val Leu Ala Gly Gly His Val
 435 440 445
 Val Pro Arg Asp Glu Ile Arg Lys Leu Met Glu Ser Gln Asp Ile Phe
 450 455 460
 Thr Gly Thr Gln Thr Glu Leu Ile Ala Gly Gly Gln Leu Leu Ser Cys
 465 470 475 480
 Leu Ser Pro Gln Pro Ala Pro Gly Val Asp Asn Val Pro Glu Gly Ser
 485 490 495
 Leu Pro Val His Gly Glu Gln Ala Leu Pro Lys Asp Gln Gln Ile Thr
 500 505 510
 Ala Leu Gly Arg Glu Glu Pro Val Ala Ile Glu Ser Pro Gly Gln Asp
 515 520 525
 Leu Leu Gly Glu Ser Arg Ser Glu Pro Val Asp Val Lys Pro Phe Ala
 530 535 540
 Ser Cys Glu Asp Ser Glu Ala Pro Val Pro Ala Glu Asp Gly Gly Ser
 545 550 555 560
 Asp Ala Gly Met Cys Gly Leu Cys Gln Lys Ala Gln Leu Glu Arg Met
 565 570 575
 Gly Val Ser Gly Pro Ser Gly Ser Asp Leu Trp Ala Gly Ala Ala Val
 580 585 590
 Ala Lys Pro Gln Ala Lys Gly Gln Leu Ala Gly Gly Ser Leu Leu Met
 595 600 605
 His Cys Pro Cys Tyr Gly Ser Glu Trp Gly Leu Trp Trp Arg Ser Gln
 610 615 620
 Asp Leu Ala Pro Ser Pro Ser Gly Met Ala Gly Leu Ser Phe Gly Thr
 625 630 635 640
 Pro Thr Leu Asp Glu Pro Trp Leu Gly Val Glu Asn Asp Arg Glu Glu
 645 650 655
 Leu Gln Thr Cys Leu Ile Lys Glu Gln Leu Ser Gln Leu Ser Leu Ala
 660 665 670
 Gly Ala Leu Asp Val Pro His Ala Glu Leu Val Pro Thr Glu Cys Gln
 675 680 685
 Ala Val Thr Ala Pro Val Ser Ser Cys Asp Leu Gly Gly Arg Asp Leu
 690 695 700
 Cys Gly Gly Cys Thr Gly Ser Ser Ser Ala Cys Tyr Ala Leu Ala Thr
 705 710 715 720
 Asp Leu Pro Gly Gly Leu Glu Ala Val Glu Ala Gln Glu Val Asp Val
 725 730 735
 Asn Ser Phe Ser Trp Asn Leu Lys Glu Leu Phe Phe Ser Asp Gln Thr
 740 745 750
 Asp Gln Thr Ser Ser Asn Cys Ser Cys Ala Thr Ser Glu Leu Arg Glu
 755 760 765
 Thr Pro Ser Ser Leu Ala Val Gly Ser Asp Pro Asp Val Gly Ser Leu
 770 775 780

Gln Glu Gln Gly Ser Cys Val Leu Asp Asp Arg Glu Leu Leu Leu Leu
 785 790 795 800
 Thr Gly Thr Cys Val Asp Leu Gly Gln Gly Arg Arg Phe Arg Glu Ser
 805 810 815
 Cys Val Gly His Asp Pro Thr Glu Pro Leu Glu Val Cys Leu Val Ser
 820 825 830
 Ser Glu His Tyr Ala Ala Ser Asp Arg Glu Ser Pro Gly His Val Pro
 835 840 845
 Ser Thr Leu Asp Ala Gly Pro Glu Asp Thr Cys Pro Ser Ala Glu Glu
 850 855 860
 Pro Arg Leu Asn Val Gln Val Thr Ser Thr Pro Val Ile Val Met Arg
 865 870 875 880
 Gly Ala Ala Gly Leu Gln Arg Glu Ile Gln Glu Gly Ala Tyr Ser Gly
 885 890 895
 Ser Cys Tyr His Arg Asp Gly Leu Arg Leu Ser Ile Gln Phe Glu Val
 900 905 910
 Arg Arg Val Glu Leu Gln Gly Pro Thr Pro Leu Phe Cys Cys Trp Leu
 915 920 925
 Val Lys Asp Leu Leu His Ser Gln Arg Asp Ser Ala Ala Arg Thr Arg
 930 935 940
 Leu Phe Leu Ala Ser Leu Pro Gly Ser Thr His Ser Thr Ala Ala Glu
 945 950 955 960
 Leu Thr Gly Pro Ser Leu Val Glu Val Leu Arg Ala Arg Pro Trp Phe
 965 970 975
 Glu Glu Pro Pro Lys Ala Val Glu Leu Glu Gly Leu Ala Ala Cys Glu
 980 985 990
 Gly Glu Tyr Ser Gln Lys Tyr Ser Thr Met Ser Pro Leu Gly Ser Gly
 995 1000 1005
 Ala Phe Gly Phe Val Trp Thr Ala Val Asp Lys Glu Lys Asn Lys Glu
 1010 1015 1020
 Val Val Val Lys Phe Ile Lys Lys Glu Lys Val Leu Glu Asp Cys Trp
 1025 1030 1035 1040
 Ile Glu Asp Pro Lys Leu Gly Lys Val Thr Leu Glu Ile Ala Ile Leu
 1045 1050 1055
 Ser Arg Val Glu His Ala Asn Ile Ile Lys Val Leu Asp Ile Phe Glu
 1060 1065 1070
 Asn Gln Gly Phe Phe Gln Leu Val Met Glu Lys His Gly Ser Gly Leu
 1075 1080 1085
 Asp Leu Phe Ala Phe Ile Asp Arg His Pro Arg Leu Asp Glu Pro Leu
 1090 1095 1100
 Ala Ser Tyr Ile Phe Arg Gln Val Arg Ala Gly Gln Ser Arg Leu Val
 1105 1110 1115 1120
 Ser Ala Val Gly Tyr Leu Arg Leu Lys Asp Ile Ile His Arg Asp Ile
 1125 1130 1135
 Lys Asp Glu Asn Ile Val Ile Ala Glu Asp Phe Thr Ile Lys Leu Ile
 1140 1145 1150
 Asp Phe Gly Ser Ala Ala Tyr Leu Glu Arg Gly Lys Leu Phe Tyr Thr
 1155 1160 1165
 Phe Cys Gly Thr Ile Glu Tyr Cys Ala Pro Glu Val Leu Met Gly Asn
 1170 1175 1180
 Pro Tyr Arg Gly Pro Glu Leu Glu Met Trp Ser Leu Gly Val Thr Leu
 1185 1190 1195 1200
 Tyr Thr Leu Val Phe Glu Glu Asn Pro Phe Cys Glu Leu Glu Glu Thr
 1205 1210 1215
 Val Glu Ala Ala Ile His Pro Pro Tyr Leu Val Ser Lys Glu Leu Met
 1220 1225 1230
 Ser Leu Val Ser Gly Leu Leu Gln Pro Val Pro Glu Arg Arg Thr Thr
 1235 1240 1245
 Leu Glu Lys Leu Val Thr Asp Pro Trp Val Thr Gln Pro Val Asn Leu
 1250 1255 1260
 Ala Asp Tyr Thr Trp Glu Glu Val Phe Arg Val Asn Lys Pro Glu Ser
 1265 1270 1275 1280
 Gly Val Leu Ser Ala Ala Ser Leu Glu Met Gly Asn Arg Ser Leu Ser
 1285 1290 1295

Asp Val Ala Gln Ala Gln Glu Leu Cys Gly Gly Pro Val Pro Gly Glu
 1300 1305 1310
 Ala Pro Asn Gly Gln Gly Cys Leu His Pro Gly Asp Pro Arg Leu Leu
 1315 1320 1325
 Thr Ser *
 1330

<210> 1893
 <211> 1324
 <212> PRT
 <213> Homo sapiens

<400> 1893
 Met Glu Asp Gly Gly Leu Thr Ala Phe Glu Glu Asp Gln Arg Cys Leu
 1 5 10 15
 Ser Gln Ser Leu Pro Leu Pro Val Ser Ala Glu Gly Pro Ala Ala Gln
 20 25 30
 Thr Thr Ala Glu Pro Ser Arg Ser Phe Ser Ser Ala His Arg His Leu
 35 40 45
 Ser Arg Arg Asn Gly Leu Ser Arg Leu Cys Gln Ser Arg Thr Ala Leu
 50 55 60
 Ser Glu Asp Arg Trp Ser Ser Tyr Cys Leu Ser Ser Leu Ala Ala Gln
 65 70 75 80
 Asn Ile Cys Thr Ser Lys Leu His Cys Pro Ala Ala Pro Glu His Thr
 85 90 95
 Asp Pro Ser Glu Pro Arg Gly Ser Val Ser Cys Cys Ser Leu Leu Arg
 100 105 110
 Gly Leu Ser Ser Gly Trp Ser Ser Pro Leu Leu Pro Ala Pro Val Cys
 115 120 125
 Asn Pro Asn Lys Ala Ile Phe Thr Val Asp Ala Lys Thr Thr Glu Ile
 130 135 140
 Leu Val Ala Asn Asp Lys Ala Cys Gly Leu Leu Gly Tyr Ser Ser Gln
 145 150 155 160
 Asp Leu Ile Gly Gln Lys Leu Thr Gln Phe Phe Leu Arg Ser Asp Ser
 165 170 175
 Asp Val Val Glu Ala Leu Ser Glu Glu His Met Glu Ala Asp Gly His
 180 185 190
 Ala Ala Val Val Phe Gly Thr Val Val Asp Ile Ile Ser Arg Ser Gly
 195 200 205
 Glu Lys Ile Pro Val Ser Val Trp Met Lys Arg Met Arg Gln Glu Arg
 210 215 220
 Arg Leu Cys Cys Val Val Val Leu Glu Pro Val Glu Arg Val Ser Thr
 225 230 235 240
 Trp Val Ala Phe Gln Ser Asp Gly Thr Val Thr Ser Cys Asp Ser Leu
 245 250 255
 Phe Ala His Leu His Gly Tyr Val Ser Gly Glu Asp Val Ala Gly Gln
 260 265 270
 His Ile Thr Asp Leu Ile Pro Ser Val Gln Leu Pro Pro Ser Gly Gln
 275 280 285
 His Ile Pro Lys Asn Leu Lys Ile Gln Arg Ser Val Gly Arg Ala Arg
 290 295 300
 Asp Gly Thr Thr Phe Pro Leu Ser Leu Lys Leu Lys Ser Gln Pro Ser
 305 310 315 320
 Ser Glu Glu Ala Thr Gly Glu Ala Ala Pro Val Ser Gly Tyr Arg
 325 330 335
 Ala Ser Val Trp Val Phe Cys Thr Ile Ser Gly Leu Ile Thr Leu Leu
 340 345 350
 Pro Asp Gly Thr Ile His Gly Ile Asn His Ser Phe Ala Leu Thr Leu
 355 360 365
 Phe Gly Tyr Gly Lys Thr Glu Leu Leu Gly Lys Asn Ile Thr Phe Leu
 370 375 380

Ile	Pro	Gly	Phe	Tyr	Ser	Tyr	Met	Asp	Leu	Ala	Tyr	Asn	Ser	Ser	Leu
385					390					395					400
Gln	Leu	Pro	Asp	Leu	Ala	Ser	Cys	Leu	Asp	Val	Gly	Asn	Glu	Ser	Gly
				405					410					415	
Cys	Gly	Glu	Arg	Thr	Leu	Asp	Pro	Trp	Gln	Gly	Gln	Asp	Pro	Ala	Glu
			420					425					430		
Gly	Gly	Gln	Asp	Pro	Arg	Ile	Asn	Val	Val	Leu	Ala	Gly	Gly	His	Val
		435					440					445			
Val	Pro	Arg	Asp	Glu	Ile	Arg	Lys	Leu	Met	Glu	Ser	Gln	Asp	Ile	Phe
	450					455					460				
Thr	Gly	Thr	Gln	Thr	Glu	Leu	Ile	Ala	Gly	Gly	Gln	Leu	Leu	Ser	Cys
465					470					475					480
Leu	Ser	Pro	Gln	Pro	Ala	Pro	Gly	Val	Asp	Asn	Val	Pro	Glu	Gly	Ser
				485					490					495	
Leu	Pro	Val	His	Gly	Glu	Gln	Ala	Leu	Pro	Lys	Asp	Gln	Gln	Ile	Thr
			500					505					510		
Ala	Leu	Gly	Arg	Glu	Glu	Pro	Val	Ala	Ile	Glu	Ser	Pro	Gly	Gln	Asp
		515					520					525			
Leu	Leu	Gly	Glu	Ser	Arg	Ser	Glu	Pro	Val	Asp	Val	Lys	Pro	Phe	Ala
	530					535					540				
Ser	Cys	Glu	Asp	Ser	Glu	Ala	Pro	Val	Pro	Ala	Glu	Asp	Gly	Gly	Ser
545					550					555					560
Asp	Ala	Gly	Met	Cys	Gly	Leu	Cys	Gln	Lys	Ala	Gln	Leu	Glu	Arg	Met
				565					570					575	
Gly	Val	Ser	Gly	Pro	Ser	Gly	Ser	Asp	Leu	Trp	Ala	Gly	Ala	Ala	Val
			580					585					590		
Ala	Lys	Pro	Gln	Ala	Lys	Gly	Gln	Leu	Ala	Gly	Gly	Ser	Leu	Leu	Met
		595					600					605			
His	Cys	Pro	Cys	Tyr	Gly	Ser	Glu	Trp	Gly	Leu	Trp	Trp	Arg	Ser	Gln
	610					615					620				
Asp	Leu	Ala	Pro	Ser	Pro	Ser	Gly	Met	Ala	Gly	Leu	Ser	Phe	Gly	Thr
625					630					635					640
Pro	Thr	Leu	Asp	Glu	Pro	Trp	Leu	Gly	Val	Glu	Asn	Asp	Arg	Glu	Glu
				645					650					655	
Leu	Gln	Thr	Cys	Leu	Ile	Lys	Glu	Gln	Leu	Ser	Gln	Leu	Ser	Leu	Ala
			660					665					670		
Gly	Ala	Leu	Asp	Val	Pro	His	Ala	Glu	Leu	Val	Pro	Thr	Glu	Cys	Gln
		675					680					685			
Ala	Val	Thr	Ala	Pro	Val	Ser	Ser	Cys	Asp	Leu	Gly	Gly	Arg	Asp	Leu
	690					695					700				
Cys	Gly	Gly	Cys	Thr	Gly	Ser	Ser	Ser	Ala	Cys	Tyr	Ala	Leu	Ala	Thr
705					710					715					720
Asp	Leu	Pro	Gly	Gly	Leu	Glu	Ala	Val	Glu	Ala	Gln	Glu	Val	Asp	Val
				725					730					735	
Asn	Ser	Phe	Ser	Trp	Asn	Leu	Lys	Glu	Leu	Phe	Phe	Ser	Asp	Gln	Thr
			740					745					750		
Asp	Gln	Thr	Ser	Ser	Asn	Cys	Ser	Cys	Ala	Thr	Ser	Glu	Leu	Arg	Glu
		755					760					765			
Thr	Pro	Ser	Ser	Leu	Ala	Val	Gly	Ser	Asp	Pro	Asp	Val	Gly	Ser	Leu
	770					775						780			
Gln	Glu	Gln	Gly	Ser	Cys	Val	Leu	Asp	Asp	Arg	Glu	Leu	Leu	Leu	Leu
785					790					795					800
Thr	Gly	Thr	Cys	Val	Asp	Leu	Gly	Gln	Gly	Arg	Arg	Phe	Arg	Glu	Ser
				805					810					815	
Cys	Val	Gly	His	Asp	Pro	Thr	Glu	Pro	Leu	Glu	Val	Cys	Leu	Val	Ser
			820					825					830		
Ser	Glu	His	Tyr	Ala	Ala	Ser	Asp	Arg	Glu	Ser	Pro	Gly	His	Val	Pro
		835					840					845			
Ser	Thr	Leu	Asp	Ala	Gly	Pro	Glu	Asp	Thr	Cys	Pro	Ser	Ala	Glu	Glu
	850					855					860				
Pro	Arg	Leu	Asn	Val	Gln	Val	Thr	Ser	Thr	Pro	Val	Ile	Val	Met	Arg
865					870					875					880
Gly	Ala	Ala	Gly	Leu	Gln	Arg	Glu	Ile	Gln	Glu	Gly	Ala	Tyr	Ser	Gly
				885					890					895	

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Ser Cys Tyr His Arg Asp Gly Leu Arg Leu Ser Ile Gln Phe Glu Val
      900                      905                      910
Arg Arg Val Glu Leu Gln Gly Pro Thr Pro Leu Phe Cys Cys Trp Leu
      915                      920                      925
Val Lys Asp Leu Leu His Ser Gln Arg Asp Ser Ala Ala Arg Thr Arg
      930                      935                      940
Leu Phe Leu Ala Ser Leu Pro Gly Ser Thr His Ser Thr Ala Ala Glu
      945                      950                      955                      960
Leu Thr Gly Pro Ser Leu Val Glu Val Leu Arg Ala Arg Pro Trp Phe
      965                      970                      975
Glu Glu Pro Pro Lys Ala Val Glu Leu Glu Gly Leu Ala Ala Cys Glu
      980                      985                      990
Gly Glu Tyr Ser Gln Lys Tyr Ser Thr Met Ser Pro Leu Gly Ser Gly
      995                      1000                      1005
Ala Phe Gly Phe Val Trp Thr Ala Val Asp Lys Glu Lys Asn Lys Glu
      1010                      1015                      1020
Val Val Val Lys Phe Ile Lys Lys Glu Lys Val Leu Glu Asp Cys Trp
      1025                      1030                      1035                      1040
Ile Glu Asp Pro Lys Leu Gly Lys Val Thr Leu Glu Ile Ala Ile Leu
      1045                      1050                      1055
Ser Arg Val Glu His Ala Asn Ile Ile Lys Val Leu Asp Ile Phe Glu
      1060                      1065                      1070
Asn Gln Gly Phe Phe Gln Leu Val Met Glu Lys His Gly Ser Gly Leu
      1075                      1080                      1085
Asp Leu Phe Ala Phe Ile Asp Arg His Pro Arg Leu Asp Glu Pro Leu
      1090                      1095                      1100
Ala Ser Tyr Ile Phe Arg Gln Leu Val Ser Ala Val Gly Tyr Leu Arg
      1105                      1110                      1115                      1120
Leu Lys Asp Ile Ile His Arg Asp Ile Lys Asp Glu Asn Ile Val Ile
      1125                      1130                      1135
Ala Glu Asp Phe Thr Ile Lys Leu Ile Asp Phe Gly Ser Ala Ala Tyr
      1140                      1145                      1150
Leu Glu Arg Gly Lys Leu Phe Tyr Thr Phe Cys Gly Thr Ile Glu Tyr
      1155                      1160                      1165
Cys Ala Pro Glu Val Leu Met Gly Asn Pro Tyr Arg Gly Pro Glu Leu
      1170                      1175                      1180
Glu Met Trp Ser Leu Gly Val Thr Leu Tyr Thr Leu Val Phe Glu Glu
      1185                      1190                      1195                      1200
Asn Pro Phe Cys Glu Leu Glu Glu Thr Val Glu Ala Ala Ile His Pro
      1205                      1210                      1215
Pro Tyr Leu Val Ser Lys Glu Leu Met Ser Leu Val Ser Gly Leu Leu
      1220                      1225                      1230
Gln Pro Val Pro Glu Arg Arg Thr Thr Leu Glu Lys Leu Val Thr Asp
      1235                      1240                      1245
Pro Trp Val Thr Gln Pro Val Asn Leu Ala Asp Tyr Thr Trp Glu Glu
      1250                      1255                      1260
Val Phe Arg Val Asn Lys Pro Glu Ser Gly Val Leu Ser Ala Ala Ser
      1265                      1270                      1275                      1280
Leu Glu Met Gly Asn Arg Ser Leu Ser Asp Val Ala Gln Ala Gln Glu
      1285                      1290                      1295
Leu Cys Gly Gly Pro Val Pro Gly Glu Ala Pro Asn Gly Gln Gly Cys
      1300                      1305                      1310
Leu His Pro Gly Asp Pro Arg Leu Leu Thr Ser *
      1315                      1320                      1323

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<210> 1894
 <211> 556
 <212> PRT
 <213> Homo sapiens

<400> 1894

Met Asp Arg Ser Lys Arg Asn Ser Ile Ala Gly Phe Pro Pro Arg Val
 1 5 10 15
 Glu Arg Leu Glu Glu Phe Glu Gly Gly Gly Gly Glu Gly Asn Val
 20 25 30
 Ser Gln Val Gly Arg Val Trp Pro Ser Ser Tyr Arg Ala Leu Ile Ser
 35 40 45
 Ala Phe Ser Arg Leu Thr Arg Leu Asp Asp Phe Thr Cys Glu Lys Ile
 50 55 60
 Gly Ser Gly Phe Phe Ser Glu Val Phe Lys Val Arg His Arg Ala Ser
 65 70 75 80
 Gly Gln Val Met Ala Leu Lys Met Asn Thr Leu Ser Ser Asn Arg Ala
 85 90 95
 Asn Met Leu Lys Glu Val Gln Leu Met Asn Arg Leu Ser His Pro Asn
 100 105 110
 Ile Leu Arg Tyr Ile Asn Ser Gly Asn Leu Glu Gln Leu Leu Asp Ser
 115 120 125
 Asn Leu His Leu Pro Trp Thr Val Arg Val Lys Leu Ala Tyr Asp Ile
 130 135 140
 Ala Val Gly Leu Ser Tyr Leu His Phe Lys Gly Ile Phe His Arg Asp
 145 150 155 160
 Leu Thr Ser Lys Asn Cys Leu Ile Lys Arg Asp Glu Asn Gly Tyr Ser
 165 170 175
 Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val Ser
 180 185 190
 Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met Ala
 195 200 205
 Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Ala Asp Val Phe
 210 215 220
 Ser Tyr Gly Ile Ile Leu Cys Glu Ile Ile Ala Arg Ile Gln Ala Asp
 225 230 235 240
 Pro Asp Tyr Leu Pro Arg Thr Glu Asn Phe Gly Leu Asp Tyr Asp Ala
 245 250 255
 Phe Gln His Met Val Gly Asp Cys Pro Pro Asp Phe Leu Gln Leu Thr
 260 265 270
 Phe Asn Cys Cys Asn Met Asp Pro Lys Leu Arg Pro Ser Phe Val Glu
 275 280 285
 Ile Gly Lys Thr Leu Glu Glu Ile Leu Ser Arg Leu Gln Glu Glu Glu
 290 295 300
 Gln Glu Arg Asp Arg Lys Leu Gln Pro Thr Ala Arg Gly Leu Leu Glu
 305 310 315 320
 Lys Ala Pro Gly Val Lys Arg Leu Ser Ser Leu Asp Asp Lys Ile Pro
 325 330 335
 His Lys Ser Pro Cys Pro Arg Arg Thr Ile Trp Leu Ser Arg Ser Gln
 340 345 350
 Ser Asp Ile Phe Ser Arg Lys Pro Pro Arg Thr Val Ser Val Leu Asp
 355 360 365
 Pro Tyr Tyr Arg Pro Arg Asp Gly Ala Ala Arg Thr Pro Lys Val Asn
 370 375 380
 Pro Phe Ser Ala Arg Gln Asp Leu Met Gly Gly Lys Ile Lys Phe Phe
 385 390 395 400
 Asp Leu Pro Ser Lys Ser Val Ile Ser Leu Val Phe Asp Leu Asp Ala
 405 410 415
 Pro Gly Pro Gly Thr Met Pro Leu Ala Asp Trp Gln Glu Pro Leu Ala
 420 425 430
 Pro Pro Ile Arg Arg Trp Arg Ser Leu Pro Gly Ser Pro Glu Phe Leu
 435 440 445
 His Gln Glu Ala Cys Pro Phe Val Gly Arg Glu Glu Ser Leu Ser Asp
 450 455 460
 Gly Pro Pro Pro Arg Leu Ser Ser Leu Lys Tyr Arg Val Lys Glu Ile
 465 470 475 480
 Pro Pro Phe Arg Ala Ser Ala Leu Pro Ala Ala Gln Ala His Glu Ala
 485 490 495
 Met Asp Cys Ser Ile Leu Gln Glu Glu Asn Gly Phe Gly Ser Arg Pro
 500 505 510

Gln Gly Thr Ser Pro Cys Pro Ala Gly Ala Ser Glu Glu Met Glu Val
 515 520 525
 Glu Glu Arg Pro Ala Gly Ser Thr Pro Ala Thr Phe Ser Thr Ser Gly
 530 535 540
 Ile Gly Leu Gln Thr Gln Gly Lys Gln Asp Gly *
 545 550 555

<210> 1895

<211> 528

<212> PRT

<213> Homo sapiens

<400> 1895

Met Asp Arg Ser Lys Arg Asn Ser Ile Ala Gly Phe Pro Pro Arg Val
 1 5 10 15
 Glu Arg Leu Glu Glu Phe Glu Gly Gly Gly Gly Glu Gly Asn Val
 20 25 30
 Ser Gln Val Gly Arg Val Trp Pro Ser Ser Tyr Arg Ala Leu Ile Ser
 35 40 45
 Ala Phe Ser Arg Leu Thr Arg Leu Asp Asp Phe Thr Cys Glu Lys Ile
 50 55 60
 Gly Ser Gly Phe Phe Ser Glu Val Phe Lys Val Arg His Arg Ala Ser
 65 70 75 80
 Gly Gln Val Met Ala Leu Lys Met Asn Thr Leu Ser Ser Asn Arg Ala
 85 90 95
 Asn Met Leu Lys Glu Val Gln Leu Met Asn Arg Leu Ser His Pro Asn
 100 105 110
 Ile Leu Arg Tyr Ile Asn Ser Gly Asn Leu Glu Gln Leu Leu Asp Ser
 115 120 125
 Asn Leu His Leu Pro Trp Thr Val Arg Val Lys Leu Ala Tyr Asp Ile
 130 135 140
 Ala Val Gly Leu Ser Tyr Leu His Phe Lys Gly Ile Phe His Arg Asp
 145 150 155 160
 Leu Thr Ser Lys Asn Cys Leu Ile Lys Arg Asp Glu Asn Gly Tyr Ser
 165 170 175
 Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val Ser
 180 185 190
 Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met Ala
 195 200 205
 Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Asn Phe Gly Leu
 210 215 220
 Asp Tyr Asp Ala Phe Gln His Met Val Gly Asp Cys Pro Pro Asp Phe
 225 230 235 240
 Leu Gln Leu Thr Phe Asn Cys Cys Asn Met Asp Pro Lys Leu Arg Pro
 245 250 255
 Ser Phe Val Glu Ile Gly Lys Thr Leu Glu Glu Ile Leu Ser Arg Leu
 260 265 270
 Gln Glu Glu Glu Gln Glu Arg Asp Arg Lys Leu Gln Pro Thr Ala Arg
 275 280 285
 Gly Leu Leu Glu Lys Ala Pro Gly Val Lys Arg Leu Ser Ser Leu Asp
 290 295 300
 Asp Lys Ile Pro His Lys Ser Pro Cys Pro Arg Arg Thr Ile Trp Leu
 305 310 315 320
 Ser Arg Ser Gln Ser Asp Ile Phe Ser Arg Lys Pro Pro Arg Thr Val
 325 330 335
 Ser Val Leu Asp Pro Tyr Tyr Arg Pro Arg Asp Gly Ala Ala Arg Thr
 340 345 350
 Pro Lys Val Asn Pro Phe Ser Ala Arg Gln Asp Leu Met Gly Gly Lys
 355 360 365
 Ile Lys Phe Phe Asp Leu Pro Ser Lys Ser Val Ile Ser Leu Val Phe
 370 375 380

Asp Leu Asp Ala Pro Gly Pro Gly Thr Met Pro Leu Ala Asp Trp Gln
 385 390 395 400
 Glu Pro Leu Ala Pro Pro Ile Arg Arg Trp Arg Ser Leu Pro Gly Ser
 405 410 415
 Pro Glu Phe Leu His Gln Glu Ala Cys Pro Phe Val Gly Arg Glu Glu
 420 425 430
 Ser Leu Ser Asp Gly Pro Pro Pro Arg Leu Ser Ser Leu Lys Tyr Arg
 435 440 445
 Val Lys Glu Ile Pro Pro Phe Arg Ala Ser Ala Leu Pro Ala Ala Gln
 450 455 460
 Ala His Glu Ala Met Asp Cys Ser Ile Leu Gln Glu Glu Asn Gly Phe
 465 470 475 480
 Gly Ser Arg Pro Gln Gly Thr Ser Pro Cys Pro Ala Gly Ala Ser Glu
 485 490 495
 Glu Met Glu Val Glu Glu Arg Pro Ala Gly Ser Thr Pro Ala Thr Phe
 500 505 510
 Ser Thr Ser Gly Ile Gly Leu Gln Thr Gln Gly Lys Gln Asp Gly *
 515 520 525 527

<210> 1896

<211> 301

<212> PRT

<213> Homo sapiens

<400> 1896

Met Asp Ser Asp Ser Cys Ala Ala Ala Phe His Pro Glu Glu Tyr Ser
 1 5 10 15
 Pro Ser Cys Lys Arg Arg Arg Thr Val Glu Asp Phe Asn Lys Phe Cys
 20 25 30
 Thr Phe Val Leu Ala Tyr Ala Gly Tyr Ile Pro Tyr Pro Lys Glu Glu
 35 40 45
 Leu Pro Leu Arg Ser Ser Pro Ser Pro Ala Asn Ser Thr Ala Gly Thr
 50 55 60
 Ile Asp Ser Asp Gly Trp Asp Ala Gly Phe Ser Asp Ile Ala Ser Ser
 65 70 75 80
 Val Pro Leu Pro Val Ser Asp Arg Cys Phe Ser His Leu Gln Pro Thr
 85 90 95
 Leu Leu Gln Arg Ala Lys Pro Ser Asn Phe Leu Leu Asp Arg Lys Lys
 100 105 110
 Thr Asp Lys Leu Lys Lys Lys Lys Arg Lys Arg Arg Asp Ser Asp
 115 120 125
 Ala Pro Gly Lys Glu Gly Tyr Arg Gly Gly Leu Leu Lys Leu Glu Ala
 130 135 140
 Ala Asp Pro Tyr Val Glu Thr Pro Thr Ser Pro Thr Leu Gln Asp Ile
 145 150 155 160
 Pro Gln Ala Pro Ser Asp Pro Cys Ser Gly Trp Asp Ser Asp Thr Pro
 165 170 175
 Ser Ser Gly Ser Cys Ala Thr Val Ser Pro Asp Gln Val Lys Lys Lys
 180 185 190
 Lys Thr Glu Gly Lys Arg Thr Ile Val Arg Gln Gly Lys Gln Val Val
 195 200 205
 Phe Arg Asp Glu Asp Ser Thr Gly Asn Asp Glu Asp Ile Met Val Asp
 210 215 220
 Ser Asp Asp Asp Ser Trp Asp Leu Val Thr Cys Phe Cys Met Lys Pro
 225 230 235 240
 Phe Ala Gly Arg Pro Met Ile Glu Cys Asn Glu Cys His Thr Trp Ile
 245 250 255
 His Leu Ser Cys Ala Lys Ile Arg Lys Ser Asn Val Pro Glu Val Phe
 260 265 270
 Val Cys Gln Lys Cys Arg Asp Ser Lys Phe Asp Ile Arg Arg Ser Asn
 275 280 285

Arg Ser Arg Thr Gly Ser Arg Lys Leu Phe Leu Asp *
 290 295 300

<210> 1897
 <211> 648
 <212> PRT
 <213> Homo sapiens

<400> 1897
 Met Pro Val Ser Leu Glu Asp Ser Gly Glu Pro Thr Ser Cys Pro Ala
 1 5 10 15
 Thr Asp Ala Glu Thr Ala Ser Glu Gly Ser Val Glu Ser Ala Ser Glu
 20 25 30
 Thr Arg Ser Gly Pro Gln Ser Ala Ser Thr Ala Val Lys Glu Arg Pro
 35 40 45
 Ala Ser Ser Glu Lys Val Lys Gly Gly Asp Asp His Asp Asp Thr Ser
 50 55 60
 Asp Ser Asp Ser Asp Gly Leu Thr Leu Lys Glu Leu Gln Asn Arg Leu
 65 70 75 80
 Arg Arg Lys Arg Glu Gln Glu Pro Thr Glu Arg Pro Leu Lys Gly Ile
 85 90 95
 Gln Ser Arg Leu Arg Lys Lys Arg Arg Glu Glu Gly Pro Ala Glu Thr
 100 105 110
 Val Gly Ser Glu Ala Ser Asp Thr Val Glu Gly Val Leu Pro Ser Lys
 115 120 125
 Gln Glu Pro Glu Asn Asp Gln Gly Val Val Ser Gln Ala Gly Lys Asp
 130 135 140
 Asp Arg Glu Ser Lys Leu Glu Gly Lys Ala Ala Gln Asp Ile Lys Asp
 145 150 155 160
 Glu Glu Pro Gly Asp Leu Gly Arg Pro Lys Pro Glu Cys Glu Gly Tyr
 165 170 175
 Asp Pro Asn Ala Leu Tyr Cys Ile Cys Arg Gln Pro His Asn Asn Arg
 180 185 190
 Phe Met Ile Cys Cys Asp Arg Cys Glu Glu Trp Phe His Gly Asp Cys
 195 200 205
 Val Gly Ile Ser Glu Ala Arg Gly Arg Leu Leu Glu Arg Asn Gly Glu
 210 215 220
 Asp Tyr Ile Cys Pro Asn Cys Thr Ile Leu Gln Val Gln Asp Glu Thr
 225 230 235 240
 His Ser Glu Thr Ala Asp Gln Gln Glu Ala Lys Trp Arg Pro Gly Asp
 245 250 255
 Ala Asp Gly Thr Asp Cys Thr Ser Ile Gly Thr Ile Glu Gln Lys Ser
 260 265 270
 Ser Glu Asp Gln Gly Ile Lys Gly Arg Ile Glu Lys Ala Ala Asn Pro
 275 280 285
 Ser Gly Lys Lys Lys Leu Lys Ile Phe Gln Pro Gly Pro Gly Pro Val
 290 295 300
 Pro Thr Gln Leu Pro Val Leu Trp Gln Val Leu Glu Ile Ala Val Ser
 305 310 315 320
 Arg Ser Ile Ser Ala Phe Thr Leu Leu His Cys Ile Ser Cys Lys Val
 325 330 335
 Ile Glu Ala Pro Gly Ala Ser Lys Cys Ile Gly Pro Gly Cys Cys His
 340 345 350
 Val Ala Gln Pro Asp Ser Val Tyr Cys Ser Asn Asp Cys Ile Leu Lys
 355 360 365
 His Ala Ala Ala Thr Met Lys Phe Leu Ser Ser Gly Lys Glu Gln Lys
 370 375 380
 Pro Lys Pro Lys Glu Lys Met Lys Met Lys Pro Glu Lys Pro Ser Leu
 385 390 395 400
 Pro Lys Cys Gly Ala Gln Ala Gly Ile Lys Ile Ser Ser Val His Lys
 405 410 415

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Arg Pro Ala Pro Glu Lys Lys Glu Thr Thr Val Lys Lys Ala Val Val
      420      425      430
Val Pro Ala Arg Ser Glu Ala Leu Gly Lys Glu Ala Ala Cys Glu Ser
      435      440      445
Ser Thr Pro Ser Trp Ala Ser Asp His Asn Tyr Asn Ala Val Lys Pro
      450      455      460
Glu Lys Thr Ala Ala Pro Ser Pro Ser Leu Leu Tyr Lys Ser Thr Lys
465      470      475      480
Glu Asp Arg Arg Ser Glu Glu Lys Ala Ala Ala Thr Ala Ala Ser Lys
      485      490      495
Lys Thr Ala Pro Pro Gly Ser Thr Val Gly Lys Gln Pro Ala Pro Arg
      500      505      510
Asn Leu Val Pro Lys Lys Ser Ser Phe Ala Asn Val Ala Ala Thr
      515      520      525
Pro Ala Ile Lys Lys Pro Pro Ser Gly Phe Lys Gly Thr Ile Pro Lys
      530      535      540
Arg Pro Trp Leu Ser Ala Thr Pro Ser Ser Gly Ala Ser Ala Ala Arg
545      550      555      560
Gln Ala Gly Pro Ala Pro Ala Ala Thr Ala Ala Ser Lys Lys Phe
      565      570      575
Pro Gly Ser Ala Ala Leu Val Gly Ala Val Arg Lys Pro Val Val Pro
      580      585      590
Ser Val Pro Met Ala Ser Pro Ala Pro Gly Arg Leu Gly Ala Met Ser
      595      600      605
Ala Ala Pro Ser Gln Pro Asn Ser Gln Ile Arg Gln Asn Ile Arg Arg
      610      615      620
Ser Leu Lys Glu Ile Leu Trp Lys Ser Ser Phe Phe Leu Phe Cys Ser
625      630      635      640
Glu Ser Met Thr Ala Met Thr *
      645      647

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<210> 1898

<211> 1016

<212> PRT

<213> Homo sapiens

<400> 1898

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Met Arg Arg Phe Leu Arg Pro Gly His Asp Pro Val Arg Glu Arg Leu
 1      5      10      15
Lys Arg Asp Leu Phe Gln Phe Asn Lys Thr Val Glu His Gly Phe Pro
      20      25      30
His Gln Pro Ser Ala Leu Gly Tyr Ser Pro Ser Leu Arg Ile Leu Ala
      35      40      45
Ile Gly Thr Arg Ser Gly Ala Ile Lys Leu Tyr Gly Ala Pro Gly Val
      50      55      60
Glu Phe Met Gly Leu His Gln Glu Asn Asn Ala Val Thr Gln Ile His
      65      70      75      80
Leu Leu Pro Gly Gln Cys Gln Leu Val Thr Leu Leu Asp Asp Asn Ser
      85      90      95
Leu His Leu Trp Ser Leu Lys Val Lys Gly Gly Ala Ser Glu Leu Gln
      100      105      110
Glu Asp Glu Ser Phe Thr Leu Arg Gly Pro Pro Gly Ala Ala Pro Ser
      115      120      125
Ala Thr Gln Ile Thr Val Val Leu Pro His Ser Ser Cys Glu Leu Leu
      130      135      140
Tyr Leu Gly Thr Glu Ser Gly Asn Val Phe Val Val Gln Leu Pro Ala
145      150      155      160
Phe Arg Ala Leu Glu Asp Arg Thr Ile Ser Ser Asp Ala Val Leu Gln
      165      170      175
Arg Leu Pro Glu Ala Arg His Arg Arg Val Phe Glu Met Val Glu
      180      185      190

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Ala	Leu	Gln	Glu	His	Pro	Arg	Asp	Pro	Asn	Gln	Ile	Leu	Ile	Gly	Tyr
	195						200					205			
Ser	Arg	Gly	Leu	Val	Val	Ile	Trp	Asp	Leu	Gln	Gly	Ser	Arg	Val	Leu
	210					215					220				
Tyr	His	Phe	Leu	Ser	Ser	Gln	Gln	Leu	Glu	Asn	Ile	Trp	Trp	Gln	Arg
	225				230					235					240
Asp	Gly	Arg	Leu	Leu	Val	Ser	Cys	His	Ser	Asp	Gly	Ser	Tyr	Cys	Gln
			245						250					255	
Trp	Pro	Val	Ser	Ser	Glu	Ala	Gln	Gln	Pro	Glu	Pro	Leu	Arg	Ser	Leu
		260						265					270		
Val	Pro	Tyr	Gly	Pro	Phe	Pro	Cys	Lys	Ala	Ile	Thr	Arg	Ile	Leu	Trp
	275						280					285			
Leu	Thr	Thr	Arg	Gln	Gly	Leu	Pro	Phe	Thr	Ile	Phe	Gln	Gly	Gly	Met
	290					295					300				
Pro	Arg	Ala	Ser	Tyr	Gly	Asp	Arg	His	Cys	Ile	Ser	Val	Ile	His	Asp
	305				310					315					320
Gly	Gln	Gln	Thr	Ala	Phe	Asp	Phe	Thr	Ser	Arg	Val	Ile	Gly	Phe	Thr
			325						330					335	
Val	Leu	Thr	Glu	Ala	Asp	Pro	Ala	Ala	Thr	Phe	Asp	Asp	Pro	Tyr	Ala
		340						345					350		
Leu	Val	Val	Leu	Ala	Glu	Glu	Glu	Leu	Val	Val	Ile	Asp	Leu	Gln	Thr
	355					360						365			
Ala	Gly	Trp	Pro	Pro	Val	Gln	Leu	Pro	Tyr	Leu	Ala	Ser	Leu	His	Cys
	370					375					380				
Ser	Ala	Ile	Thr	Cys	Ser	His	His	Val	Ser	Asn	Ile	Pro	Leu	Lys	Leu
	385				390					395					400
Trp	Glu	Arg	Ile	Ile	Ala	Ala	Gly	Ser	Arg	Gln	Asn	Ala	His	Phe	Ser
			405						410					415	
Thr	Met	Glu	Trp	Pro	Ile	Asp	Gly	Gly	Thr	Ser	Leu	Thr	Pro	Ala	Pro
		420					425						430		
Pro	Gln	Arg	Asp	Leu	Leu	Leu	Thr	Gly	His	Glu	Asp	Gly	Thr	Val	Arg
	435					440						445			
Phe	Trp	Asp	Ala	Ser	Gly	Val	Cys	Leu	Arg	Leu	Leu	Tyr	Lys	Leu	Ser
	450					455					460				
Thr	Val	Arg	Val	Phe	Leu	Thr	Asp	Thr	Asp	Pro	Asn	Glu	Asn	Phe	Ser
	465				470					475				480	
Ala	Gln	Gly	Glu	Asp	Glu	Trp	Pro	Pro	Leu	Arg	Lys	Val	Gly	Ser	Phe
			485						490					495	
Asp	Pro	Tyr	Ser	Asp	Asp	Pro	Arg	Leu	Gly	Ile	Gln	Lys	Ile	Phe	Leu
		500						505					510		
Cys	Lys	Tyr	Ser	Gly	Tyr	Leu	Ala	Val	Ala	Gly	Thr	Ala	Gly	Gln	Val
	515					520						525			
Leu	Val	Leu	Glu	Leu	Asn	Asp	Glu	Ala	Ala	Glu	Gln	Ala	Val	Glu	Gln
	530					535					540				
Val	Glu	Ala	Asp	Leu	Leu	Gln	Asp	Gln	Glu	Gly	Tyr	Arg	Trp	Lys	Gly
	545				550					555				560	
His	Glu	Arg	Leu	Ala	Ala	Arg	Ser	Gly	Pro	Val	Arg	Phe	Glu	Pro	Gly
			565						570					575	
Phe	Gln	Pro	Phe	Val	Leu	Val	Gln	Cys	Gln	Pro	Pro	Ala	Val	Val	Thr
		580						585					590		
Ser	Leu	Ala	Leu	His	Ser	Glu	Trp	Arg	Leu	Val	Ala	Phe	Gly	Thr	Ser
	595					600						605			
His	Gly	Phe	Gly	Leu	Phe	Asp	His	Gln	Gln	Arg	Arg	Gln	Val	Phe	Val
	610					615					620				
Lys	Cys	Thr	Leu	His	Pro	Ser	Asp	Gln	Leu	Ala	Leu	Glu	Gly	Pro	Leu
	625				630					635				640	
Ser	Arg	Val	Lys	Ser	Leu	Lys	Lys	Ser	Leu	Arg	Gln	Ser	Phe	Arg	Arg
			645						650					655	
Met	Arg	Arg	Ser	Arg	Val	Ser	Ser	Arg	Lys	Arg	His	Pro	Ala	Gly	Pro
		660						665					670		
Pro	Gly	Glu	Ala	Gln	Glu	Gly	Ser	Ala	Lys	Ala	Glu	Arg	Pro	Gly	Leu
	675					680						685			
Gln	Asn	Met	Glu	Leu	Ala	Pro	Val	Gln	Arg	Lys	Ile	Glu	Ala	Arg	Ser
	690					695					700				

Ala Glu Asp Ser Phe Thr Gly Phe Val Arg Thr Leu Tyr Phe Ala Asp
 705 710 715 720
 Thr Tyr Leu Lys Asp Ser Ser Arg His Cys Pro Ser Leu Trp Ala Gly
 725 730 735
 Thr Asn Gly Gly Thr Ile Tyr Ala Phe Ser Leu Arg Val Pro Pro Ala
 740 745 750
 Glu Arg Arg Met Asp Glu Pro Val Arg Ala Glu Gln Ala Lys Glu Ile
 755 760 765
 Gln Leu Met His Arg Ala Pro Val Val Gly Ile Leu Val Leu Asp Gly
 770 775 780
 His Ser Val Pro Leu Pro Glu Pro Leu Glu Val Ala His Asp Leu Ser
 785 790 795 800
 Lys Ser Pro Asp Met Gln Gly Ser His Gln Leu Leu Val Val Ser Glu
 805 810 815
 Glu Gln Phe Lys Val Phe Thr Leu Pro Lys Val Ser Ala Lys Leu Lys
 820 825 830
 Leu Lys Leu Thr Ala Leu Glu Gly Ser Arg Val Arg Arg Val Ser Val
 835 840 845
 Ala His Phe Gly Ser Arg Arg Ala Glu Asp Tyr Gly Glu His His Leu
 850 855 860
 Ala Val Leu Thr Asn Leu Gly Asp Ile Gln Val Val Ser Leu Pro Leu
 865 870 875 880
 Leu Lys Pro Gln Val Arg Tyr Ser Cys Ile Arg Arg Glu Asp Val Ser
 885 890 895
 Gly Ile Ala Ser Cys Val Phe Thr Lys Tyr Gly Gln Gly Phe Tyr Leu
 900 905 910
 Ile Ser Pro Ser Glu Phe Glu Arg Phe Ser Leu Ser Thr Lys Trp Leu
 915 920 925
 Val Glu Pro Arg Cys Leu Val Asp Ser Ala Glu Thr Lys Asn His Arg
 930 935 940
 Pro Gly Asn Gly Ala Gly Pro Lys Lys Ala Pro Ser Arg Ala Arg Asn
 945 950 955 960
 Ser Gly Thr Gln Ser Asp Gly Glu Glu Lys Gln Pro Gly Leu Val Met
 965 970 975
 Glu Arg Ala Leu Ser Asp Glu Arg Ala Ala Thr Gly Val His Ile
 980 985 990
 Glu Pro Pro Trp Gly Ala Ala Ser Ala Met Ala Glu Gln Ser Glu Trp
 995 1000 1005
 Leu Ser Val Gln Ala Ala Arg *
 1010 1015

<210> 1899

<211> 946

<212> PRT

<213> Homo sapiens

<400> 1899

Met Arg Arg Phe Leu Arg Pro Gly His Asp Pro Val Arg Glu Arg Leu
 1 5 10 15
 Lys Arg Asp Leu Phe Gln Phe Asn Lys Thr Val Glu His Gly Phe Pro
 20 25 30
 His Gln Pro Ser Ala Leu Gly Tyr Ser Pro Ser Leu Arg Ile Leu Ala
 35 40 45
 Ile Gly Thr Arg Ser Gly Ala Ile Lys Leu Tyr Gly Ala Pro Gly Val
 50 55 60
 Glu Phe Met Gly Leu His Gln Glu Asn Asn Ala Val Thr Gln Ile His
 65 70 75 80
 Leu Leu Pro Gly Gln Cys Gln Leu Val Thr Leu Leu Asp Asp Asn Ser
 85 90 95
 Leu His Leu Trp Ser Leu Lys Val Lys Gly Gly Ala Ser Glu Leu Gln
 100 105 110

3813

Pro Val Gln Arg Lys Ile Glu Ala Arg Ser Ala Glu Asp Ser Phe Thr
 625 630 635 640
 Gly Phe Val Arg Thr Leu Tyr Phe Ala Asp Thr Tyr Leu Lys Asp Ser
 645 650 655
 Ser Arg His Cys Pro Ser Leu Trp Ala Gly Thr Asn Gly Gly Thr Ile
 660 665 670
 Tyr Ala Phe Ser Leu Arg Val Pro Ala Glu Arg Arg Met Asp Glu
 675 680 685
 Pro Val Arg Ala Glu Gln Ala Lys Glu Ile Gln Leu Met His Arg Ala
 690 695 700
 Pro Val Val Gly Ile Leu Val Leu Asp Gly His Ser Val Pro Leu Pro
 705 710 715 720
 Glu Pro Leu Glu Val Ala His Asp Leu Ser Lys Ser Pro Asp Met Gln
 725 730 735
 Gly Ser His Gln Leu Leu Val Val Ser Glu Glu Gln Phe Lys Val Phe
 740 745 750
 Thr Leu Pro Lys Val Ser Ala Lys Leu Lys Leu Lys Leu Thr Ala Leu
 755 760 765
 Glu Gly Ser Arg Val Arg Arg Val Ser Val Ala His Phe Gly Ser Arg
 770 775 780
 Arg Ala Glu Asp Tyr Gly Glu His His Leu Ala Val Leu Thr Asn Leu
 785 790 795 800
 Gly Asp Ile Gln Val Val Ser Leu Pro Leu Leu Lys Pro Gln Val Arg
 805 810 815
 Tyr Ser Cys Ile Arg Arg Glu Asp Val Ser Gly Ile Ala Ser Cys Val
 820 825 830
 Phe Thr Lys Tyr Gly Gln Gly Phe Tyr Leu Ile Ser Pro Ser Glu Phe
 835 840 845
 Glu Arg Phe Ser Leu Ser Thr Lys Trp Leu Val Glu Pro Arg Cys Leu
 850 855 860
 Val Asp Ser Ala Glu Thr Lys Asn His Arg Pro Gly Asn Gly Ala Gly
 865 870 875 880
 Pro Lys Lys Ala Pro Ser Arg Ala Arg Asn Ser Gly Thr Gln Ser Asp
 885 890 895
 Gly Glu Glu Lys Gln Pro Gly Leu Val Met Glu Arg Ala Leu Leu Ser
 900 905 910
 Asp Glu Arg Ala Ala Thr Gly Val His Ile Glu Pro Pro Trp Gly Ala
 915 920 925
 Ala Ser Ala Met Ala Glu Gln Ser Glu Trp Leu Ser Val Gln Ala Ala
 930 935 940
 Arg *
 945

<210> 1900

<211> 778

<212> PRT

<213> Homo sapiens

<400> 1900

Met Pro Leu Ala Pro Thr Met Ala Pro Ala Pro Ala Ala Pro Ser Thr
 1 5 10 15
 Ala Trp Pro Thr Ser Pro Glu Ser Pro Val Val Ser Thr Pro Thr Lys
 20 25 30
 Ser Met Gln Ala Leu Ser Thr Val Pro Leu Asp Trp Val Thr Val Pro
 35 40 45
 Lys Leu Gln Glu Cys Gly Ala Arg Pro Ala Met Glu Lys Pro Thr Arg
 50 55 60
 Val Val Gly Gly Phe Gly Ala Ala Ser Gly Glu Val Pro Trp Gln Val
 65 70 75 80
 Ser Leu Lys Glu Gly Ser Arg His Phe Cys Gly Ala Thr Val Val Gly
 85 90 95

Asp	Arg	Trp	Leu	Leu	Ser	Ala	Ala	His	Cys	Phe	Asn	His	Thr	Lys	Val
			100					105					110		
Glu	Gln	Val	Arg	Ala	His	Leu	Gly	Thr	Ala	Ser	Leu	Leu	Gly	Leu	Gly
		115					120					125			
Gly	Ser	Pro	Val	Lys	Ile	Gly	Leu	Arg	Arg	Val	Val	Leu	His	Pro	Leu
		130				135					140				
Tyr	Asn	Pro	Gly	Ile	Leu	Asp	Phe	Asp	Leu	Ala	Val	Leu	Glu	Leu	Ala
145					150					155					160
Ser	Pro	Leu	Ala	Phe	Asn	Lys	Tyr	Ile	Gln	Pro	Val	Cys	Leu	Pro	Leu
			165						170					175	
Ala	Ile	Gln	Lys	Phe	Pro	Val	Gly	Arg	Lys	Cys	Met	Ile	Ser	Gly	Trp
			180					185					190		
Gly	Asn	Thr	Gln	Glu	Gly	Asn	Ala	Thr	Lys	Pro	Glu	Leu	Leu	Gln	Lys
		195				200						205			
Ala	Ser	Val	Gly	Ile	Ile	Asp	Gln	Lys	Thr	Cys	Ser	Val	Leu	Tyr	Asn
		210				215					220				
Phe	Ser	Leu	Thr	Asp	Arg	Met	Ile	Cys	Ala	Gly	Phe	Leu	Glu	Gly	Lys
225					230					235					240
Val	Asp	Ser	Cys	Gln	Val	Ser	Gly	Ile	Lys	Ala	Leu	Tyr	Glu	Ser	Glu
			245						250					255	
Leu	Ala	Asp	Ala	Arg	Arg	Val	Leu	Asp	Glu	Thr	Ala	Arg	Glu	Arg	Ala
			260					265					270		
Arg	Leu	Gln	Ile	Glu	Ile	Gly	Lys	Leu	Arg	Ala	Glu	Leu	Asp	Glu	Val
		275					280					285			
Asn	Lys	Ser	Ala	Lys	Lys	Arg	Glu	Gly	Glu	Leu	Thr	Val	Ala	Gln	Gly
		290				295					300				
Arg	Val	Lys	Asp	Leu	Glu	Ser	Leu	Phe	His	Arg	Ser	Glu	Val	Glu	Leu
305					310					315					320
Ala	Ala	Ala	Leu	Ser	Asp	Lys	Arg	Gly	Leu	Glu	Ser	Asp	Val	Ala	Glu
			325					330						335	
Leu	Arg	Ala	Gln	Leu	Ala	Lys	Ala	Glu	Asp	Gly	His	Ala	Val	Ala	Lys
			340					345					350		
Lys	Gln	Leu	Glu	Lys	Glu	Thr	Leu	Met	Arg	Val	Asp	Leu	Glu	Asn	Arg
		355					360					365			
Cys	Gln	Ser	Leu	Gln	Glu	Glu	Leu	Asp	Phe	Arg	Lys	Ser	Val	Phe	Glu
		370				375					380				
Glu	Glu	Val	Arg	Glu	Thr	Arg	Arg	Arg	His	Glu	Arg	Arg	Leu	Val	Glu
385					390					395					400
Val	Asp	Ser	Ser	Arg	Gln	Gln	Glu	Tyr	Asp	Phe	Lys	Met	Ala	Gln	Ala
			405						410					415	
Leu	Glu	Glu	Leu	Arg	Ser	Gln	His	Asp	Glu	Gln	Val	Arg	Leu	Tyr	Lys
			420					425					430		
Leu	Glu	Leu	Glu	Gln	Thr	Tyr	Gln	Ala	Lys	Leu	Asp	Ser	Ala	Lys	Leu
		435					440					445			
Ser	Ser	Asp	Gln	Asn	Asp	Lys	Ala	Ala	Ser	Ala	Ala	Arg	Glu	Glu	Leu
		450				455					460				
Lys	Glu	Ala	Arg	Met	Arg	Leu	Glu	Ser	Leu	Ser	Tyr	Gln	Leu	Ser	Gly
465					470					475					480
Leu	Gln	Lys	Gln	Ala	Ser	Ala	Ala	Glu	Asp	Arg	Ile	Arg	Glu	Leu	Glu
			485						490					495	
Glu	Ala	Met	Ala	Gly	Glu	Arg	Asp	Lys	Phe	Arg	Lys	Met	Leu	Asp	Ala
			500					505					510		
Lys	Glu	Gln	Glu	Met	Thr	Glu	Met	Arg	Asp	Val	Met	Gln	Gln	Gln	Leu
		515					520					525			
Ala	Glu	Tyr	Gln	Glu	Leu	Leu	Asp	Val	Lys	Leu	Ala	Leu	Asp	Met	Glu
		530				535					540				
Ile	Asn	Ala	Tyr	Arg	Lys	Leu	Leu	Glu	Gly	Glu	Glu	Glu	Arg	Leu	Lys
545					550					555					560
Leu	Ser	Pro	Ser	Pro	Ser	Ser	Arg	Val	Thr	Val	Ser	Arg	Ala	Thr	Ser
			565						570					575	
Ser	Ser	Ser	Gly	Ser	Leu	Ser	Ala	Thr	Gly	Arg	Leu	Gly	Arg	Ser	Lys
			580					585					590		
Arg	Lys	Arg	Leu	Glu	Val	Glu	Glu	Pro	Leu	Gly	Ser	Gly	Pro	Ser	Val
		595					600						605		

Leu Gly Thr Gly Thr Gly Gly Ser Gly Gly Phe His Leu Ala Gln Gln
 610 615 620
 Ala Ser Ala Ser Gly Ser Val Ser Ile Glu Glu Ile Asp Leu Glu Gly
 625 630 635 640
 Lys Phe Val Gln Leu Lys Asn Asn Ser Asp Lys Asp Gln Ser Leu Gly
 645 650 655
 Asn Trp Arg Ile Lys Arg Gln Val Leu Glu Gly Glu Glu Ile Ala Tyr
 660 665 670
 Lys Phe Thr Pro Lys Tyr Ile Leu Arg Ala Gly Gln Met Val Thr Val
 675 680 685
 Trp Ala Ala Gly Ala Gly Val Ala His Ser Pro Pro Ser Thr Leu Val
 690 695 700
 Trp Lys Gly Gln Ser Ser Trp Gly Thr Gly Glu Ser Phe Arg Thr Val
 705 710 715 720
 Leu Val Asn Ala Asp Gly Glu Glu Val Ala Met Arg Thr Val Lys Lys
 725 730 735
 Ser Ser Val Met Arg Glu Asn Glu Asn Gly Glu Glu Glu Glu Glu Glu
 740 745 750
 Ala Glu Phe Gly Glu Glu Asp Leu Phe His Gln Gln Gly Asp Pro Arg
 755 760 765
 Thr Thr Ser Arg Gly Cys Tyr Val Met *
 770 775 777

<210> 1901

<211> 616

<212> PRT

<213> Homo sapiens

<400> 1901

Met Phe Ala Arg Gly Ser Arg Arg Arg Arg Ser Gly Arg Ala Pro Pro
 1 5 10 15
 Glu Ala Glu Asp Pro Asp Arg Gly Gln Pro Cys Asn Ser Cys Arg Glu
 20 25 30
 Gln Cys Pro Gly Phe Leu Leu His Gly Trp Arg Lys Ile Cys Gln His
 35 40 45
 Cys Lys Cys Pro Arg Glu Glu His Ala Val His Ala Val Pro Val Asp
 50 55 60
 Leu Glu Arg Ile Met Cys Arg Leu Ile Ser Asp Phe Gln Arg His Ser
 65 70 75 80
 Ile Ser Asp Asp Asp Ser Gly Cys Ala Ser Glu Glu Tyr Ala Trp Val
 85 90 95
 Pro Pro Gly Leu Lys Pro Glu Gln Val Tyr Gln Phe Phe Ser Cys Leu
 100 105 110
 Pro Glu Asp Lys Val Pro Tyr Val Asn Ser Pro Gly Glu Lys Tyr Arg
 115 120 125
 Ile Lys Gln Leu Leu His Gln Leu Pro Pro His Asp Ser Glu Ala Gln
 130 135 140
 Tyr Cys Thr Ala Leu Glu Glu Glu Lys Lys Glu Leu Arg Ala Phe
 145 150 155 160
 Ser Gln Gln Arg Lys Arg Glu Asn Leu Gly Arg Gly Ile Val Arg Ile
 165 170 175
 Phe Pro Val Thr Ile Thr Gly Ala Ile Cys Glu Glu Cys Gly Lys Gln
 180 185 190
 Ile Gly Gly Asp Ile Ala Val Phe Ala Ser Arg Ala Gly Leu Gly
 195 200 205
 Ala Cys Trp His Pro Gln Cys Phe Val Cys Thr Thr Cys Gln Glu Leu
 210 215 220
 Leu Val Asp Leu Ile Tyr Phe Tyr His Val Gly Lys Val Tyr Cys Gly
 225 230 235 240
 Arg His His Ala Glu Cys Leu Arg Pro Arg Cys Gln Ala Cys Asp Glu
 245 250 255

```

Ile Ile Phe Ser Pro Glu Cys Thr Glu Ala Glu Gly Arg His Trp His
      260      265      270
Met Asp His Phe Cys Cys Phe Glu Cys Glu Ala Ser Leu Gly Gly Gln
      275      280      285
Arg Tyr Val Met Arg Gln Ser Arg Pro His Cys Cys Ala Cys Tyr Glu
      290      295      300
Ala Arg His Ala Glu Tyr Cys Asp Gly Cys Gly Glu His Ile Gly Leu
305      310      315      320
Asp Gln Gly Gln Met Ala Tyr Glu Gly Gln His Trp His Ala Ser Asp
      325      330      335
Arg Cys Phe Cys Cys Ser Arg Cys Gly Arg Ala Leu Leu Gly Arg Pro
      340      345      350
Phe Leu Pro Arg Arg Gly Leu Ile Phe Cys Ser Arg Ala Cys Ser Leu
      355      360      365
Gly Ser Glu Pro Thr Ala Pro Gly Pro Ser Arg Arg Ser Trp Ser Ala
      370      375      380
Gly Pro Val Thr Ala Pro Leu Ala Ala Ser Thr Ala Ser Phe Ser Ala
385      390      395      400
Val Lys Gly Ala Ser Glu Thr Thr Thr Lys Gly Thr Ser Thr Glu Leu
      405      410      415
Ala Pro Ala Thr Gly Pro Glu Glu Pro Ser Arg Phe Leu Arg Gly Ala
      420      425      430
Pro His Arg His Ser Met Pro Glu Leu Gly Leu Arg Ser Val Pro Glu
      435      440      445
Pro Pro Pro Glu Ser Pro Gly Gln Pro Asn Leu Arg Pro Asp Asp Ser
      450      455      460
Ala Phe Gly Arg Gln Ser Thr Pro Arg Val Ser Phe Arg Asp Pro Leu
465      470      475      480
Val Ser Glu Gly Gly Pro Arg Arg Thr Leu Ser Ala Pro Pro Ala Gln
      485      490      495
Arg Arg Arg Pro Arg Ser Pro Pro Pro Arg Ala Pro Ser Arg Arg Arg
      500      505      510
His His His Asn His His His His Asn Arg His Pro Ser Arg
      515      520      525
Arg Arg His Tyr Gln Cys Asp Ala Gly Ser Gly Ser Asp Ser Glu Ser
      530      535      540
Cys Ser Ser Ser Pro Ser Ser Ser Ser Ser Glu Ser Ser Glu Asp Asp
545      550      555      560
Gly Phe Phe Leu Gly Glu Arg Ile Pro Leu Pro Pro His Leu Cys Arg
      565      570      575
Pro Met Pro Ala Gln Asp Thr Ala Met Glu Thr Phe Asn Ser Pro Ser
      580      585      590
Leu Ser Leu Pro Arg Asp Ser Arg Ala Gly Met Pro Arg Gln Ala Arg
      595      600      605
Asp Lys Asn Cys Ile Val Ala *
      610      615

```

<210> 1902

<211> 1249

<212> PRT

<213> Homo sapiens

<400> 1902

```

Met Met Thr Gly Tyr Asn Asn Gly Arg Cys Pro Arg Asn Ser Leu Tyr
  1      5      10      15
Ser Asp Cys Ile Ile Glu Glu Lys Thr Val Val Leu Gln Lys Lys Asp
      20      25      30
Asn Glu Gly Phe Gly Phe Val Leu Arg Gly Ala Lys Ala Asp Thr Pro
      35      40      45
Ile Glu Glu Phe Thr Pro Thr Pro Ala Phe Pro Ala Leu Gln Tyr Leu
      50      55      60

```

Glu	Ser	Val	Asp	Glu	Gly	Gly	Val	Ala	Trp	Gln	Ala	Gly	Leu	Arg	Thr	65	70	75	80
Gly	Asp	Phe	Leu	Ile	Glu	Val	Asn	Asn	Glu	Asn	Val	Val	Lys	Val	Gly	85	90	95	
His	Arg	Gln	Val	Val	Asn	Met	Ile	Arg	Gln	Gly	Gly	Asn	His	Leu	Val	100	105	110	
Leu	Lys	Val	Val	Thr	Val	Thr	Arg	Asn	Leu	Asp	Pro	Asp	Asp	Thr	Ala	115	120	125	
Arg	Lys	Lys	Ala	Pro	Pro	Pro	Pro	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Leu	130	135	140	
Thr	Leu	Arg	Ser	Lys	Ser	Met	Thr	Ser	Glu	Leu	Glu	Glu	Leu	Val	Asp	145	150	155	160
Lys	Ala	Ser	Val	Arg	Lys	Lys	Lys	Asp	Lys	Pro	Glu	Glu	Ile	Val	Pro	165	170	175	
Ala	Ser	Lys	Pro	Ser	Arg	Ala	Ala	Glu	Asn	Met	Ala	Val	Glu	Pro	Arg	180	185	190	
Val	Ala	Thr	Ile	Lys	Gln	Arg	Pro	Ser	Ser	Arg	Cys	Phe	Pro	Ala	Gly	195	200	205	
Ser	Asp	Met	Asn	Ser	Val	Tyr	Glu	Arg	Gln	Gly	Ile	Ala	Val	Met	Thr	210	215	220	
Pro	Thr	Val	Pro	Gly	Ser	Pro	Lys	Ala	Pro	Phe	Leu	Gly	Ile	Pro	Arg	225	230	235	240
Gly	Thr	Met	Arg	Arg	Gln	Lys	Ser	Ile	Asp	Ser	Arg	Ile	Phe	Leu	Ser	245	250	255	
Gly	Ile	Thr	Glu	Glu	Glu	Arg	Gln	Phe	Leu	Ala	Pro	Pro	Met	Leu	Lys	260	265	270	
Phe	Thr	Arg	Ser	Leu	Ser	Met	Pro	Asp	Thr	Ser	Glu	Asp	Ile	Pro	Pro	275	280	285	
Pro	Pro	Gln	Ser	Val	Pro	Pro	Ser	Pro	Pro	Pro	Pro	Ser	Pro	Thr	Thr	290	295	300	
Tyr	Asn	Cys	Pro	Lys	Ser	Pro	Thr	Pro	Arg	Val	Tyr	Gly	Thr	Ile	Lys	305	310	315	320
Pro	Ala	Phe	Asn	Gln	Asn	Ser	Ala	Ala	Lys	Val	Ser	Pro	Ala	Thr	Arg	325	330	335	
Ser	Asp	Thr	Val	Ala	Thr	Met	Met	Arg	Glu	Lys	Gly	Met	Tyr	Phe	Arg	340	345	350	
Arg	Glu	Leu	Asp	Arg	Tyr	Ser	Leu	Asp	Ser	Glu	Asp	Leu	Tyr	Ser	Arg	355	360	365	
Asn	Ala	Gly	Pro	Gln	Ala	Asn	Phe	Arg	Asn	Lys	Arg	Gly	Gln	Met	Pro	370	375	380	
Glu	Asn	Pro	Tyr	Ser	Glu	Val	Gly	Lys	Ile	Ala	Ser	Lys	Ala	Val	Tyr	385	390	395	400
Val	Pro	Ala	Lys	Pro	Ala	Arg	Arg	Lys	Gly	Met	Leu	Val	Lys	Gln	Ser	405	410	415	
Asn	Val	Glu	Asp	Ser	Pro	Glu	Lys	Thr	Cys	Ser	Ile	Pro	Ile	Pro	Thr	420	425	430	
Ile	Ile	Val	Lys	Glu	Pro	Ser	Thr	Ser	Ser	Ser	Gly	Lys	Ser	Ser	Gln	435	440	445	
Gly	Ser	Ser	Met	Glu	Ile	Asp	Pro	Gln	Ala	Pro	Glu	Pro	Pro	Ser	Gln	450	455	460	
Leu	Arg	Pro	Asp	Glu	Ser	Leu	Thr	Val	Ser	Ser	Pro	Phe	Ala	Ala	Ala	465	470	475	480
Ile	Ala	Gly	Ala	Val	Arg	Asp	Arg	Glu	Lys	Arg	Leu	Glu	Ala	Arg	Arg	485	490	495	
Asn	Ser	Pro	Ala	Phe	Leu	Ser	Thr	Asp	Leu	Gly	Asp	Glu	Asp	Val	Gly	500	505	510	
Leu	Gly	Pro	Pro	Ala	Pro	Arg	Thr	Arg	Pro	Ser	Met	Phe	Pro	Glu	Glu	515	520	525	
Gly	Asp	Phe	Ala	Asp	Glu	Asp	Ser	Ala	Glu	Gln	Leu	Ser	Ser	Pro	Met	530	535	540	
Pro	Ser	Ala	Thr	Pro	Arg	Glu	Pro	Glu	Asn	His	Phe	Val	Gly	Gly	Ala	545	550	555	560
Glu	Ala	Ser	Ala	Pro	Gly	Glu	Ala	Gly	Arg	Pro	Leu	Asn	Ser	Thr	Ser	565	570	575	

Lys Ala Gln Gly Pro Glu Ser Ser Pro Ala Val Pro Ser Ala Ser Ser
 580 585 590
 Gly Thr Ala Gly Pro Gly Asn Tyr Val His Pro Leu Thr Gly Arg Leu
 595 600 605
 Leu Asp Pro Ser Ser Pro Leu Ala Leu Ala Leu Ser Ala Arg Asp Arg
 610 615 620
 Ala Met Lys Glu Ser Gln Gln Gly Pro Lys Gly Glu Ala Pro Lys Ala
 625 630 635 640
 Asp Leu Asn Lys Pro Leu Tyr Ile Asp Thr Lys Met Arg Pro Ser Leu
 645 650 655
 Asp Ala Gly Phe Pro Thr Val Thr Arg Gln Asn Thr Arg Gly Pro Leu
 660 665 670
 Arg Arg Gln Glu Thr Glu Asn Lys Tyr Glu Thr Asp Leu Gly Arg Asp
 675 680 685
 Arg Lys Gly Asp Asp Lys Lys Asn Met Leu Ile Asp Ile Met Asp Thr
 690 695 700
 Ser Gln Gln Lys Ser Ala Gly Leu Leu Met Val His Thr Val Asp Ala
 705 710 715 720
 Thr Lys Leu Asp Asn Ala Leu Gln Glu Glu Asp Glu Lys Ala Glu Val
 725 730 735
 Glu Met Lys Pro Asp Ser Ser Pro Ser Glu Val Pro Glu Gly Val Ser
 740 745 750
 Glu Thr Glu Gly Ala Leu Gln Ile Ser Ala Ala Pro Glu Pro Thr Thr
 755 760 765
 Val Pro Gly Arg Thr Ile Val Ala Val Gly Ser Met Glu Glu Ala Val
 770 775 780
 Ile Leu Pro Phe Arg Ile Pro Pro Pro Pro Leu Ala Ser Val Asp Leu
 785 790 795 800
 Asp Glu Asp Phe Ile Phe Thr Glu Pro Leu Pro Pro Pro Leu Glu Phe
 805 810 815
 Ala Asn Ser Phe Asp Ile Pro Asp Asp Arg Ala Ala Ser Val Pro Ala
 820 825 830
 Leu Ser Asp Leu Val Lys Gln Lys Lys Ser Asp Thr Pro Gln Ser Pro
 835 840 845
 Ser Leu Asn Ser Ser Gln Pro Thr Asn Ser Ala Asp Ser Lys Lys Pro
 850 855 860
 Ala Ser Leu Ser Asn Cys Leu Pro Ala Ser Phe Leu Pro Pro Pro Glu
 865 870 875 880
 Ser Phe Asp Ala Val Ala Asp Ser Gly Ile Glu Glu Val Asp Ser Arg
 885 890 895
 Ser Ser Ser Asp His His Leu Glu Thr Thr Ser Thr Ile Ser Thr Val
 900 905 910
 Ser Ser Ile Ser Thr Leu Ser Ser Glu Gly Gly Glu Asn Val Asp Thr
 915 920 925
 Cys Thr Val Tyr Ala Asp Gly Gln Ala Phe Met Val Asp Lys Pro Pro
 930 935 940
 Val Pro Pro Lys Pro Lys Met Lys Pro Ile Ile His Lys Ser Asn Ala
 945 950 955 960
 Leu Tyr Gln Asp Ala Leu Val Glu Glu Asp Val Asp Ser Phe Val Ile
 965 970 975
 Pro Pro Pro Ala Pro Pro Pro Pro Gly Ser Ala Gln Pro Gly Met
 980 985 990
 Ala Lys Val Leu Gln Pro Arg Thr Ser Lys Leu Trp Gly Asp Val Thr
 995 1000 1005
 Glu Ile Lys Ser Pro Ile Leu Ser Gly Pro Lys Ala Asn Val Ile Ser
 1010 1015 1020
 Glu Leu Asn Ser Ile Leu Gln Gln Met Asn Arg Glu Lys Leu Ala Lys
 1025 1030 1035 1040
 Pro Gly Glu Gly Leu Asp Ser Pro Met Gly Ala Lys Ser Ala Ser Leu
 1045 1050 1055
 Ala Pro Arg Ser Pro Glu Ile Met Ser Thr Ile Ser Gly Thr Arg Ser
 1060 1065 1070
 Thr Thr Val Thr Phe Thr Val Arg Pro Gly Thr Ser Gln Pro Ile Thr
 1075 1080 1085

Leu Gln Ser Arg Pro Pro Asp Tyr Glu Ser Arg Thr Ser Gly Thr Arg
 1090 1095 1100
 Arg Ala Pro Ser Pro Val Val Ser Pro Thr Glu Met Asn Lys Glu Thr
 1105 1110 1115 1120
 Leu Pro Ala Pro Leu Ser Ala Ala Thr Ala Ser Pro Ser Pro Ala Leu
 1125 1130 1135
 Ser Asp Val Phe Ser Leu Pro Ser Gln Pro Pro Ser Gly Asp Leu Phe
 1140 1145 1150
 Gly Leu Asn Pro Ala Gly Arg Ser Arg Ser Pro Ser Pro Ser Ile Leu
 1155 1160 1165
 Gln Gln Pro Ile Ser Asn Lys Pro Phe Thr Thr Lys Pro Val His Leu
 1170 1175 1180
 Trp Thr Lys Pro Asp Val Ala Asp Trp Leu Glu Ser Leu Asn Leu Gly
 1185 1190 1195 1200
 Glu His Lys Glu Ala Phe Met Asp Asn Glu Ile Asp Gly Ser His Leu
 1205 1210 1215
 Pro Asn Leu Gln Lys Glu Asp Leu Ile Asp Leu Gly Val Thr Arg Val
 1220 1225 1230
 Gly His Arg Met Asn Ile Glu Arg Ala Leu Lys Gln Leu Leu Asp Arg
 1235 1240 1245 1248
 *

<210> 1903
 <211> 355
 <212> PRT
 <213> Homo sapiens

<400> 1903
 Met Asn Leu Leu Thr Leu Asp Val Lys Lys Lys Ile Lys Glu Val Thr
 1 5 10 15
 Glu Glu Val Ala Asn Lys Val Ser Cys Ala Met Thr Asp Glu Ile Cys
 20 25 30
 Arg Leu Ser Val Leu Val Asp Glu Phe Cys Ser Glu Phe His Pro Asn
 35 40 45
 Pro Asp Val Leu Lys Ile Tyr Lys Ser Glu Leu Asn Lys His Ile Glu
 50 55 60
 Asp Gly Met Gly Arg Asn Leu Ala Asp Arg Cys Thr Asp Glu Val Asn
 65 70 75 80
 Ala Leu Val Leu Gln Thr Gln Gln Glu Ile Ile Glu Asn Leu Lys Pro
 85 90 95
 Leu Leu Pro Ala Gly Ile Gln Asp Lys Leu His Thr Leu Ile Pro Cys
 100 105 110
 Lys Lys Phe Asp Leu Ser Tyr Asn Leu Asn Tyr His Lys Leu Cys Ser
 115 120 125
 Asp Phe Gln Glu Asp Ile Val Phe Arg Phe Ser Leu Gly Trp Ser Ser
 130 135 140
 Leu Val His Arg Phe Leu Gly Pro Arg Asn Ala Gln Arg Val Leu Leu
 145 150 155 160
 Gly Leu Ser Glu Pro Ile Phe Gln Leu Pro Arg Ser Leu Ala Ser Thr
 165 170 175
 Pro Thr Ala Pro Thr Thr Pro Ala Thr Pro Asp Asn Ala Ser Gln Glu
 180 185 190
 Glu Leu Met Ile Thr Leu Val Thr Gly Leu Ala Ser Val Thr Ser Arg
 195 200 205
 Thr Ser Met Gly Ile Ile Ile Val Gly Gly Val Ile Trp Lys Thr Ile
 210 215 220
 Gly Trp Lys Leu Leu Ser Val Ser Leu Thr Met Tyr Gly Ala Leu Tyr
 225 230 235 240
 Leu Tyr Glu Arg Leu Ser Trp Thr Thr His Ala Lys Glu Arg Ala Phe
 245 250 255

Lys Gln Gln Phe Val Asn Tyr Ala Thr Glu Lys Leu Arg Met Ile Val
 260 265 270
 Ser Ser Thr Ser Ala Asn Cys Ser His Gln Val Lys Gln Gln Ile Ala
 275 280 285
 Thr Thr Phe Ala Arg Leu Cys Gln Gln Val Asp Ile Thr Gln Lys Gln
 290 295 300
 Leu Glu Glu Glu Ile Ala Arg Leu Pro Lys Glu Ile Asp Gln Leu Glu
 305 310 315 320
 Lys Ile Gln Asn Asn Ser Lys Leu Leu Arg Asn Lys Ala Val Gln Leu
 325 330 335
 Glu Asn Glu Leu Glu Asn Phe Thr Lys Gln Phe Leu Pro Ser Ser Asn
 340 345 350
 Glu Glu Ser
 355

<210> 1904
 <211> 245
 <212> PRT
 <213> Homo sapiens

<400> 1904
 Met Asn Leu Leu Thr Leu Asp Val Lys Lys Lys Ile Lys Glu Val Thr
 1 5 10 15
 Glu Glu Val Pro Asn Lys Val Ser Cys Ala Met Thr Asp Glu Ile Cys
 20 25 30
 Arg Leu Ser Val Leu Val Asp Glu Phe Cys Ser Glu Phe His Pro Asn
 35 40 45
 Pro Asp Val Leu Lys Ile Tyr Lys Ser Leu Pro Arg Ser Leu Ala Ser
 50 55 60
 Thr Pro Thr Ala Pro Thr Thr Pro Ala Thr Pro Asp Asn Ala Ser Gln
 65 70 75 80
 Glu Glu Leu Met Ile Thr Leu Val Thr Gly Leu Ala Ser Val Thr Ser
 85 90 95
 Arg Thr Ser Met Gly Ile Ile Ile Val Gly Gly Val Ile Trp Lys Thr
 100 105 110
 Ile Gly Trp Lys Leu Leu Ser Val Ser Leu Thr Met Tyr Gly Ala Leu
 115 120 125
 Tyr Leu Tyr Glu Arg Leu Ser Trp Thr Thr His Ala Lys Glu Arg Ala
 130 135 140
 Phe Lys Gln Gln Phe Val Asn Tyr Ala Thr Glu Lys Leu Arg Met Ile
 145 150 155 160
 Val Ser Ser Thr Ser Ala Asn Cys Ser His Gln Val Lys Gln Gln Ile
 165 170 175
 Ala Thr Thr Phe Ala Arg Leu Cys Gln Gln Val Asp Ile Thr His Lys
 180 185 190
 Gln Leu Glu Glu Glu Ile Ala Arg Leu Pro Lys Glu Ile Asp Gln Leu
 195 200 205
 Glu Lys Ile Gln Asn Asn Ser Lys Leu Leu Arg Asn Lys Ala Val Gln
 210 215 220
 Leu Glu Asn Glu Leu Glu Asn Phe Thr Lys Gln Phe Leu Pro Ser Ser
 225 230 235 240
 Asn Glu Glu Ser *
 244

<210> 1905
 <211> 276
 <212> PRT
 <213> Homo sapiens

<400> 1905

```

Met Thr Asp Asp Lys Asp Val Leu Arg Asp Val Trp Phe Gly Arg Ile
 1          5          10          15
Pro Thr Cys Phe Thr Leu Tyr Gln Asp Glu Ile Thr Glu Arg Glu Ala
          20          25          30
Glu Pro Tyr Tyr Leu Leu Leu Pro Arg Val Ser Tyr Leu Thr Leu Val
          35          40          45
Thr Asp Lys Val Lys Lys His Phe Gln Lys Val Met Arg Gln Glu Asp
          50          55          60
Ile Ser Glu Ile Trp Phe Glu Tyr Glu Gly Thr Pro Leu Lys Trp His
 65          70          75          80
Tyr Pro Ile Gly Leu Leu Phe Asp Leu Leu Ala Ser Ser Ser Ala Leu
          85          90          95
Pro Trp Asn Ile Thr Val His Phe Lys Ser Phe Pro Glu Lys Asp Leu
          100          105          110
Leu His Cys Pro Ser Lys Asp Ala Ile Glu Ala His Phe Met Ser Cys
          115          120          125
Met Lys Glu Ala Asp Ala Leu Lys His Lys Ser Gln Val Ile Asn Glu
          130          135          140
Met Gln Lys Lys Asp His Lys Gln Leu Trp Met Gly Leu Gln Asn Asp
          145          150          155          160
Arg Phe Asp Gln Phe Trp Ala Ile Asn Arg Lys Leu Met Glu Tyr Pro
          165          170          175
Ala Glu Glu Asn Gly Phe Arg Tyr Ile Pro Phe Arg Ile Tyr Gln Thr
          180          185          190
Thr Thr Glu Arg Pro Phe Ile Gln Lys Leu Phe Arg Pro Val Ala Ala
          195          200          205
Asp Gly Gln Leu His Thr Leu Gly Asp Leu Leu Lys Glu Val Cys Pro
          210          215          220
Ser Ala Ile Asp Pro Glu Asp Gly Glu Lys Lys Asn Gln Val Met Ile
          225          230          235          240
His Gly Ile Glu Pro Met Leu Glu Thr Pro Leu Gln Trp Leu Ser Glu
          245          250          255
His Leu Ser Tyr Pro Asp Asn Phe Leu His Ile Ser Ile Ile Pro Gln
          260          265          270
Pro Thr Asp *
          275

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<210> 1906

<211> 128

<212> PRT

<213> Homo sapiens

<400> 1906

```

Met Cys Pro Leu Pro Leu Ala Ala Ala Val Ala Ala Pro Arg Ala
 1          5          10          15
Pro Leu Arg Leu Leu Asn Arg Gly Leu Ala Ala Ala Met Ser Thr Ala
          20          25          30
Gln Ser Leu Lys Ser Val Asp Tyr Glu Val Phe Gly Arg Val Gln Gly
          35          40          45
Val Cys Phe Arg Met Tyr Thr Glu Asp Glu Ala Arg Lys Ile Gly Val
          50          55          60
Val Gly Trp Val Lys Asn Thr Ser Lys Gly Thr Val Thr Gly Gln Val
          65          70          75          80
Gln Gly Pro Glu Asp Lys Val Asn Ser Met Lys Ser Trp Leu Ser Lys
          85          90          95
Val Gly Ser Pro Ser Ser Arg Ile Asp Arg Thr Asn Phe Ser Asn Glu
          100          105          110
Lys Thr Ile Ser Lys Leu Glu Tyr Ser Asn Phe Ser Ile Arg Tyr *
          115          120          125          127

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<210> 1907
 <211> 287
 <212> PRT
 <213> Homo sapiens

<400> 1907
 Met Ser Ala Pro Leu Asp Ala Ala Leu His Ala Leu Gln Glu Glu Gln
 1 5 10 15
 Ala Arg Leu Lys Met Arg Leu Trp Asp Leu Gln Gln Leu Arg Lys Glu
 20 25 30
 Leu Gly Asp Ser Pro Lys Asp Lys Val Pro Phe Ser Val Pro Lys Ile
 35 40 45
 Pro Leu Val Phe Arg Gly His Thr Gln Gln Asp Pro Glu Val Pro Lys
 50 55 60
 Ser Leu Val Ser Asn Leu Arg Ile His Cys Pro Leu Leu Ala Gly Ser
 65 70 75 80
 Ala Leu Ile Thr Phe Asp Asp Pro Lys Val Ala Glu Gln Val Leu Gln
 85 90 95
 Gln Lys Glu His Thr Ile Asn Met Glu Glu Cys Arg Leu Arg Val Gln
 100 105 110
 Val Gln Pro Leu Glu Leu Pro Met Val Thr Thr Ile Gln Val Ser Ser
 115 120 125
 Gln Leu Ser Gly Arg Arg Val Leu Val Thr Gly Phe Pro Ala Ser Leu
 130 135 140
 Arg Leu Ser Glu Glu Glu Leu Leu Asp Lys Leu Glu Ile Phe Phe Gly
 145 150 155 160
 Lys Thr Arg Asn Gly Gly Gly Asp Val Asp Val Arg Glu Leu Leu Pro
 165 170 175
 Gly Ser Val Met Leu Gly Phe Ala Arg Asp Gly Val Ala Gln Arg Leu
 180 185 190
 Cys Gln Ile Gly Gln Phe Thr Val Pro Leu Gly Gly Gln Gln Val Pro
 195 200 205
 Leu Arg Val Ser Pro Tyr Val Asn Gly Glu Ile Gln Lys Ala Glu Ile
 210 215 220
 Arg Ser Gln Pro Val Pro Arg Ser Val Leu Val Leu Asn Ile Pro Asp
 225 230 235 240
 Ile Leu Asp Gly Pro Glu Leu His Asp Val Leu Glu Ile His Phe Gln
 245 250 255
 Lys Pro Thr Arg Gly Gly Gly Glu Val Glu Ala Leu Thr Val Val Pro
 260 265 270
 Gln Gly Gln Gln Gly Leu Ala Val Phe Thr Ser Glu Ser Gly *
 275 280 285 286

<210> 1908
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 1908
 Met Met Lys Cys Pro Gln Ala Leu Leu Ala Ile Phe Trp Leu Leu Leu
 1 5 10 15
 Ser Trp Val Ser Ser Glu Asp Lys Val Val Gln Ser Pro Leu Ser Leu
 20 25 30
 Val Val His Glu Gly Asp Thr Val Thr Leu Asn Cys Ser Tyr Glu Val
 35 40 45
 Thr Asn Phe Arg Ser Leu Leu Trp Tyr Lys Gln Glu Lys Lys Ala Pro
 50 55 60

Thr	Phe	Leu	Phe	Met	Leu	Thr	Ser	Ser	Gly	Ile	Glu	Lys	Lys	Ser	Gly
65					70					75					80
Arg	Leu	Ser	Ser	Ile	Leu	Asp	Lys	Lys	Glu	Leu	Ser	Ser	Ile	Leu	Asn
				85					90					95	
Ile	Thr	Ala	Thr	Gln	Thr	Gly	Asp	Ser	Ala	Ile	Tyr	Leu	Cys	Ala	Val
		100					105					110			
Glu	Ala	Gln	Cys	Ser	Leu	Val	Thr	Cys	Ser	Leu	Tyr	Ser	Asn	Ser	Thr
		115					120					125			
Ala	Glu	Ala	Leu	Gln	Leu	*									
130					134										

<210> 1909

<211> 416

<212> PRT

<213> Homo sapiens

<400> 1909

Met	Leu	Trp	Ser	Gly	Cys	Arg	Arg	Phe	Gly	Ala	Arg	Leu	Gly	Cys	Leu
1				5					10					15	
Pro	Gly	Gly	Leu	Arg	Val	Leu	Val	Gln	Thr	Gly	His	Arg	Ser	Leu	Thr
			20					25					30		
Ser	Cys	Ile	Asp	Pro	Ser	Met	Gly	Leu	Asn	Glu	Glu	Gln	Lys	Glu	Phe
		35				40						45			
Gln	Lys	Val	Ala	Phe	Asp	Phe	Ala	Ala	Arg	Glu	Met	Ala	Pro	Asn	Met
	50					55					60				
Ala	Glu	Trp	Asp	Gln	Lys	Glu	Leu	Phe	Pro	Val	Asp	Val	Met	Arg	Lys
	65				70				75					80	
Ala	Ala	Gln	Leu	Gly	Phe	Gly	Gly	Val	Tyr	Ile	Gln	Thr	Asp	Val	Gly
			85					90						95	
Gly	Ser	Gly	Leu	Ser	Arg	Leu	Asp	Thr	Ser	Val	Ile	Phe	Glu	Ala	Leu
		100					105					110			
Ala	Thr	Gly	Cys	Thr	Ser	Thr	Thr	Ala	Tyr	Ile	Ser	Ile	His	Asn	Met
	115					120						125			
Cys	Ala	Trp	Met	Ile	Asp	Ser	Phe	Gly	Asn	Glu	Glu	Gln	Arg	His	Lys
	130					135					140				
Phe	Cys	Pro	Pro	Leu	Cys	Thr	Met	Glu	Lys	Phe	Ala	Ser	Tyr	Cys	Leu
	145				150					155				160	
Thr	Glu	Pro	Gly	Ser	Gly	Ser	Asp	Ala	Ala	Ser	Leu	Leu	Thr	Ser	Ala
			165					170						175	
Lys	Lys	Gln	Gly	Asp	His	Tyr	Ile	Leu	Asn	Gly	Ser	Lys	Ala	Phe	Ile
		180					185						190		
Ser	Gly	Ala	Gly	Glu	Ser	Asp	Ile	Tyr	Val	Val	Met	Cys	Arg	Thr	Gly
	195					200						205			
Gly	Pro	Gly	Pro	Lys	Gly	Ile	Ser	Cys	Ile	Val	Val	Glu	Lys	Gly	Thr
	210					215						220			
Pro	Gly	Leu	Ser	Phe	Gly	Lys	Lys	Glu	Lys	Lys	Val	Gly	Trp	Asn	Ser
	225				230					235				240	
Gln	Pro	Thr	Arg	Ala	Val	Ile	Phe	Glu	Asp	Cys	Ala	Val	Pro	Val	Ala
			245					250						255	
Asn	Arg	Ile	Gly	Ser	Glu	Gly	Gln	Gly	Phe	Leu	Ile	Ala	Val	Arg	Gly
		260				265						270			
Leu	Asn	Gly	Gly	Arg	Ile	Asn	Ile	Ala	Ser	Cys	Ser	Leu	Gly	Ala	Ala
	275					280						285			
His	Ala	Ser	Val	Ile	Leu	Thr	Arg	Asp	His	Leu	Asn	Val	Arg	Lys	Gln
	290					295					300				
Phe	Gly	Glu	Pro	Leu	Ala	Ser	Asn	Gln	Tyr	Leu	Gln	Phe	Thr	Leu	Ala
	305				310					315				320	
Asp	Met	Ala	Thr	Arg	Leu	Val	Ala	Ala	Arg	Leu	Met	Val	Arg	Asn	Ala
			325					330						335	
Ala	Val	Ala	Leu	Gln	Glu	Glu	Arg	Lys	Asp	Ala	Val	Ala	Leu	Cys	Ser
		340						345					350		

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Met Ala Lys Leu Phe Ala Thr Asp Glu Cys Phe Ala Ile Cys Asn Gln
    355                      360                      365
Ala Leu Gln Met His Gly Gly Tyr Gly Tyr Leu Lys Asp Tyr Ala Val
    370                      375                      380
Gln Gln Tyr Val Arg Asp Ser Arg Val His Gln Ile Leu Glu Gly Ser
385                      390                      395                      400
Asn Glu Val Met Arg Ile Leu Ile Ser Arg Ser Leu Leu Gln Glu *
    405                      410                      415

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<210> 1910
 <211> 282
 <212> PRT
 <213> Homo sapiens

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<400> 1910
Met Ser Gln Pro Arg Thr Pro Glu Gln Ala Leu Asp Thr Pro Gly Asp
 1                      5                      10                      15
Cys Pro Pro Gly Arg Arg Asp Glu Asp Ala Gly Glu Gly Ile Gln Cys
    20                      25                      30
Ser Gln Arg Met Leu Ser Phe Ser Asp Ala Leu Leu Ser Ile Ile Ala
    35                      40                      45
Thr Val Met Ile Leu Pro Val Thr His Thr Glu Ile Ser Pro Glu Gln
    50                      55                      60
Gln Phe Asp Arg Ser Val Gln Arg Leu Leu Ala Thr Arg Ile Ala Val
    65                      70                      75                      80
Tyr Leu Met Thr Phe Leu Ile Val Thr Val Ala Trp Ala Ala His Thr
    85                      90                      95
Arg Leu Phe Gln Val Val Gly Lys Thr Asp Asp Thr Leu Ala Leu Leu
    100                      105                      110
Asn Leu Ala Cys Met Lys Thr Ile Thr Phe Leu Pro Tyr Thr Phe Ser
    115                      120                      125
Leu Met Val Thr Phe Pro Asp Val Pro Leu Gly Ile Phe Leu Phe Cys
    130                      135                      140
Val Cys Val Ile Ala Ile Gly Val Val Gln Ala Leu Ile Val Gly Tyr
145                      150                      155                      160
Ala Phe His Phe Pro His Leu Leu Ser Pro Gln Ile Gln Arg Ser Ala
    165                      170                      175
His Arg Ala Leu Tyr Arg Arg His Val Leu Gly Ile Val Leu Gln Gly
    180                      185                      190
Pro Ala Leu Cys Phe Ala Ala Ala Ile Phe Ser Leu Phe Phe Val Pro
    195                      200                      205
Leu Ser Tyr Leu Leu Met Val Thr Val Ile Leu Leu Pro Tyr Val Ser
    210                      215                      220
Lys Val Thr Gly Trp Cys Arg Asp Arg Leu Leu Gly His Arg Glu Pro
225                      230                      235                      240
Ser Ala His Pro Val Glu Val Phe Ser Phe Asp Leu His Glu Pro Leu
    245                      250                      255
Ser Lys Glu Arg Val Glu Ala Phe Ser Asp Gly Val Tyr Ala Ile Val
    260                      265                      270
Ala Thr Leu Leu Ile Leu Asp Ile Trp *
    275                      280 281

```

<210> 1911
 <211> 343
 <212> PRT
 <213> Homo sapiens

<400> 1911

```

Met Gln Ala Val Asp Asn Leu Thr Ser Ala Pro Gly Asn Thr Ser Leu
 1          5          10          15
Cys Thr Arg Asp Tyr Lys Ile Thr Gln Val Leu Phe Pro Leu Leu Tyr
          20          25          30
Thr Val Leu Phe Phe Val Gly Leu Ile Thr Asn Gly Leu Ala Met Arg
          35          40          45
Ile Phe Phe Gln Ile Arg Ser Lys Ser Asn Phe Ile Ile Phe Leu Lys
          50          55          60
Asn Thr Val Ile Ser Asp Leu Leu Met Ile Leu Thr Phe Pro Phe Lys
          65          70          75          80
Ile Leu Ser Asp Ala Lys Leu Gly Thr Gly Pro Leu Arg Thr Phe Val
          85          90          95
Cys Gln Val Thr Ser Val Ile Phe Tyr Phe Thr Met Tyr Ile Ser Ile
          100          105          110
Ser Phe Leu Gly Leu Ile Thr Ile Asp Arg Tyr Gln Lys Thr Thr Arg
          115          120          125
Pro Phe Lys Thr Ser Asn Pro Lys Asn Leu Leu Gly Ala Lys Ile Leu
          130          135          140
Ser Val Val Ile Trp Ala Phe Met Phe Leu Leu Ser Leu Pro Asn Met
          145          150          155          160
Ile Leu Thr Asn Arg Gln Pro Arg Asp Lys Asn Val Lys Lys Cys Ser
          165          170          175
Phe Leu Lys Ser Glu Phe Gly Leu Val Trp His Glu Ile Val Asn Tyr
          180          185          190
Ile Cys Gln Val Ile Phe Trp Ile Asn Phe Leu Ile Val Ile Val Cys
          195          200          205
Tyr Thr Leu Ile Thr Lys Glu Leu Tyr Arg Ser Tyr Val Arg Thr Arg
          210          215          220
Gly Val Gly Lys Val Pro Arg Lys Lys Val Asn Val Lys Val Phe Ile
          225          230          235          240
Ile Ile Ala Val Phe Phe Ile Cys Phe Val Pro Phe His Phe Ala Arg
          245          250          255
Ile Pro Tyr Thr Leu Ser Gln Thr Arg Asp Val Phe Asp Cys Thr Ala
          260          265          270
Glu Asn Thr Leu Phe Tyr Val Lys Glu Ser Thr Leu Trp Leu Thr Ser
          275          280          285
Leu Asn Ala Cys Leu Asp Pro Phe Ile Tyr Phe Phe Leu Cys Lys Ser
          290          295          300
Phe Arg Asn Ser Leu Ile Ser Met Leu Lys Cys Pro Asn Ser Ala Thr
          305          310          315          320
Ser Leu Ser Gln Asp Asn Arg Lys Lys Glu Gln Asp Gly Gly Asp Pro
          325          330          335
Asn Glu Glu Thr Pro Met *
          340          342

```

<210> 1912

<211> 141

<212> PRT

<213> Homo sapiens

<400> 1912

```

Met Val His Leu Thr Pro Glu Glu Lys Ser Ala Val Thr Ala Leu Trp
 1          5          10          15
Gly Lys Val Asn Val Asp Glu Val Gly Gly Glu Ala Leu Gly Arg Leu
          20          25          30
Leu Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Glu Ser Phe Gly Asp
          35          40          45
Leu Ser Thr Pro Asp Ala Val Met Gly Asn Pro Lys Val Lys Ala His
          50          55          60
Gly Lys Lys Val Leu Gly Ala Phe Ser Asp Gly Leu Ala His Leu Asp
          65          70          75          80

```


Asn	Leu	Lys	Gly	Thr	Phe	Ala	Thr	Leu	Ser	Glu	Leu	His	Cys	Asp	Lys
			85						90					95	
Leu	His	Val	Asp	Pro	Glu	Asn	Phe	Arg	Leu	Leu	Gly	Asn	Val	Leu	Val
		100						105					110		
Cys	Val	Leu	Ala	His	His	Phe	Gly	Lys	Glu	Phe	Thr	Pro	Pro	Val	Ala
	115						120					125			
Gly	Leu	Pro	Ile	Arg	Lys	Leu	Val	Ala	Gly	Cys	Gly	*			
	130					135					140				

<210> 1913

<211> 556

<212> PRT

<213> Homo sapiens

<400> 1913

Met	Pro	Thr	Thr	Val	Asp	Asp	Val	Leu	Glu	His	Gly	Gly	Glu	Phe	His
1				5					10					15	
Phe	Phe	Gln	Lys	Gln	Met	Phe	Phe	Leu	Leu	Ala	Leu	Leu	Ser	Ala	Thr
		20						25					30		
Phe	Ala	Pro	Ile	Tyr	Val	Gly	Ile	Val	Phe	Leu	Gly	Phe	Thr	Pro	Asp
	35					40					45				
His	Arg	Cys	Arg	Ser	Pro	Gly	Val	Ala	Glu	Leu	Ser	Leu	Arg	Cys	Gly
	50					55					60				
Trp	Ser	Pro	Ala	Glu	Glu	Leu	Asn	Tyr	Thr	Val	Pro	Gly	Pro	Gly	Pro
	65			70					75					80	
Ala	Gly	Glu	Ala	Ser	Pro	Arg	Gln	Cys	Arg	Arg	Tyr	Glu	Val	Asp	Trp
			85					90						95	
Asn	Gln	Ser	Thr	Phe	Asp	Cys	Val	Asp	Pro	Leu	Ala	Ser	Leu	Asp	Thr
		100						105					110		
Asn	Arg	Ser	Arg	Leu	Pro	Leu	Gly	Pro	Cys	Arg	Asp	Gly	Trp	Val	Tyr
	115					120					125				
Glu	Thr	Pro	Gly	Ser	Ser	Ile	Val	Thr	Glu	Phe	Asn	Leu	Val	Cys	Ala
	130					135					140				
Asn	Ser	Trp	Met	Leu	Asp	Leu	Phe	Gln	Ser	Ser	Val	Asn	Val	Gly	Phe
	145			150					155					160	
Phe	Ile	Gly	Ser	Met	Ser	Ile	Gly	Tyr	Ile	Ala	Asp	Arg	Phe	Gly	Arg
		165						170					175		
Lys	Leu	Cys	Leu	Leu	Thr	Thr	Val	Leu	Ile	Asn	Ala	Ala	Ala	Gly	Val
		180						185					190		
Leu	Met	Ala	Ile	Ser	Pro	Thr	Tyr	Thr	Trp	Met	Leu	Ile	Phe	Arg	Leu
	195					200					205				
Ile	Gln	Gly	Leu	Val	Ser	Lys	Ala	Gly	Trp	Leu	Ile	Gly	Tyr	Ile	Leu
	210					215					220				
Ile	Thr	Glu	Phe	Val	Gly	Arg	Arg	Tyr	Arg	Arg	Thr	Val	Gly	Ile	Phe
	225				230				235					240	
Tyr	Gln	Val	Ala	Tyr	Thr	Val	Gly	Leu	Leu	Val	Leu	Ala	Gly	Val	Ala
		245						250					255		
Tyr	Ala	Leu	Pro	His	Trp	Arg	Trp	Leu	Gln	Phe	Thr	Val	Ala	Leu	Pro
	260							265					270		
Asn	Phe	Phe	Phe	Leu	Leu	Tyr	Tyr	Trp	Cys	Ile	Pro	Glu	Ser	Pro	Arg
	275					280					285				
Trp	Leu	Ile	Ser	Gln	Asn	Lys	Asn	Ala	Glu	Ala	Met	Arg	Ile	Ile	Lys
	290				295						300				
His	Ile	Ala	Lys	Lys	Asn	Gly	Lys	Ser	Leu	Pro	Ala	Ser	Leu	Gln	Arg
	305				310				315					320	
Leu	Arg	Leu	Glu	Glu	Glu	Thr	Gly	Lys	Lys	Leu	Asn	Pro	Ser	Phe	Leu
		325						330						335	
Asp	Leu	Val	Arg	Thr	Pro	Gln	Ile	Arg	Lys	His	Thr	Met	Ile	Leu	Met
	340							345					350		
Tyr	Asn	Trp	Phe	Thr	Ser	Ser	Val	Leu	Tyr	Gln	Gly	Leu	Ile	Met	His
	355						360					365			

```

Met Gly Leu Ala Gly Asp Asn Ile Tyr Leu Asp Phe Phe Tyr Ser Ala
 370                      375                      380
Leu Val Glu Phe Pro Ala Ala Phe Met Ile Ile Leu Thr Ile Asp Arg
385                      390                      395                      400
Ile Gly Arg Arg Tyr Pro Trp Ala Ala Ser Asn Met Val Ala Gly Ala
                      405                      410                      415
Ala Cys Leu Ala Ser Val Phe Ile Pro Gly Asp Leu Gln Trp Leu Lys
                      420                      425                      430
Ile Ile Ile Ser Cys Leu Gly Arg Met Gly Ile Thr Met Ala Tyr Glu
                      435                      440                      445
Ile Val Cys Leu Val Asn Ala Glu Leu Tyr Pro Thr Phe Ile Arg Asn
450                      455                      460
Leu Gly Val His Ile Cys Ser Ser Met Cys Asp Ile Gly Gly Ile Ile
465                      470                      475                      480
Thr Pro Phe Leu Val Tyr Arg Leu Thr Asn Ile Trp Leu Glu Leu Pro
                      485                      490                      495
Leu Met Val Phe Gly Val Leu Gly Leu Val Ala Gly Gly Leu Val Leu
                      500                      505                      510
Leu Leu Pro Glu Thr Lys Gly Lys Ala Leu Pro Glu Thr Ile Glu Glu
515                      520                      525
Ala Glu Asn Met Gln Arg Pro Arg Lys Asn Lys Glu Lys Met Ile Tyr
530                      535                      540
Leu Gln Val Gln Lys Leu Asp Ile Pro Leu Asn *
545                      550                      555

```

<210> 1914
 <211> 283
 <212> PRT
 <213> Homo sapiens

```

<400> 1914
Met Leu Gly Val Asn Pro Arg Phe Asp Ser Ala Ser Ser Ser Tyr Tyr
 1                      5                      10                      15
Leu Asp Met His Ser Leu Pro His Val Ile Asn Pro Val Glu Ser Arg
                      20                      25                      30
Leu Gly Ser Ser Ala Ala Ser Leu Tyr Pro Val Leu Asn Phe Leu Leu
35                      40                      45
Tyr Val Pro Glu Leu Ala His Ser Pro Leu Tyr Ile Gln Asp Lys Asp
50                      55                      60
Gly Ala Pro Val Ala Thr Asn Ala Phe His Ser Pro Arg Trp Gly Gly
65                      70                      75                      80
Ile Met Val Tyr Asn Val Asp Ser Lys Thr Tyr Asn Ala Ser Val Leu
                      85                      90                      95
Pro Val Arg Val Glu Val Asp Met Val Arg Val Met Glu Val Phe Leu
100                      105                      110
Ala Gln Leu Arg Leu Leu Phe Gly Ile Ala Gln Pro Gln Leu Pro Pro
115                      120                      125
Lys Cys Leu Leu Ser Gly Pro Thr Ser Glu Gly Leu Met Thr Trp Glu
130                      135                      140
Leu Asp Arg Leu Leu Trp Ala Arg Ser Val Glu Asn Leu Ala Thr Ala
145                      150                      155                      160
Thr Thr Thr Leu Thr Ser Leu Ala Gln Leu Gly Lys Ile Ser Asn
165                      170                      175
Ile Val Ile Lys Asp Asp Val Ala Ser Glu Val Tyr Lys Ala Val Ala
180                      185                      190
Ala Val Gln Lys Ser Ala Glu Glu Leu Ala Ser Gly His Leu Ala Ser
195                      200                      205
Ala Phe Val Ala Ser Gln Glu Ala Val Thr Ser Ser Glu Leu Ala Phe
210                      215                      220
Phe Asp Pro Ser Leu Leu His Leu Leu Tyr Phe Pro Asp Asp Gln Lys
225                      230                      235                      240

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```
<210> 1915
<211> 788
<212> PRT
<213> Homo sapiens
```

3829

Leu Phe Phe Val Leu Lys Ser Ser Asp Val Leu Asp Ile Leu Val Pro
 385 390 395 400
 Ile Leu Phe Phe Leu Asn Asp Ala Arg Ala Asp Gln Ser Arg Val Gly
 405 410 415
 Leu Met His Ile Gly Val Phe Ile Leu Leu Leu Leu Ser Gly Glu Arg
 420 425 430
 Asn Phe Gly Val Arg Leu Asn Lys Pro Tyr Ser Ile Arg Val Pro Met
 435 440 445
 Asp Ile Pro Val Phe Thr Gly Thr His Ala Asp Leu Leu Ile Val Val
 450 455 460
 Phe His Lys Ile Ile Thr Ser Gly His Gln Arg Leu Gln Pro Leu Phe
 465 470 475 480
 Asp Cys Leu Leu Thr Ile Val Val Asn Val Ser Pro Tyr Leu Lys Ser
 485 490 495
 Leu Ser Met Val Thr Ala Asn Lys Leu Leu His Leu Leu Glu Ala Phe
 500 505 510
 Ser Thr Thr Trp Phe Leu Phe Ser Ala Ala Gln Asn His His Leu Val
 515 520 525
 Phe Phe Leu Leu Glu Val Phe Asn Asn Ile Ile Gln Tyr Gln Phe Asp
 530 535 540
 Gly Asn Ser Asn Leu Val Tyr Ala Ile Ile Arg Lys Arg Ser Ile Phe
 545 550 555 560
 His Gln Leu Ala Asn Leu Pro Thr Asp Pro Pro Thr Ile His Lys Ala
 565 570 575
 Leu Gln Arg Arg Arg Arg Thr Pro Glu Pro Leu Ser Arg Thr Gly Ser
 580 585 590
 Gln Glu Gly Thr Ser Met Glu Gly Ser Arg Pro Ala Ala Pro Ala Glu
 595 600 605
 Pro Gly Thr Leu Lys Thr Ser Leu Val Ala Thr Pro Gly Ile Asp Lys
 610 615 620
 Leu Thr Glu Lys Ser Gln Val Ser Glu Asp Gly Thr Leu Arg Ser Leu
 625 630 635 640
 Glu Pro Glu Pro Gln Gln Ser Leu Glu Asp Gly Ser Pro Ala Lys Gly
 645 650 655
 Glu Pro Ser Gln Ala Trp Arg Glu Gln Arg Arg Pro Ser Thr Ser Ser
 660 665 670
 Ala Ser Gly Gln Trp Ser Pro Thr Pro Glu Trp Val Leu Ser Trp Lys
 675 680 685
 Ser Lys Leu Pro Leu Gln Thr Ile Met Arg Leu Leu Gln Val Leu Val
 690 695 700
 Pro Gln Val Glu Lys Ile Cys Ile Asp Lys Gly Leu Thr Asp Glu Ser
 705 710 715 720
 Glu Ile Leu Arg Phe Leu Gln His Gly Thr Leu Val Gly Leu Leu Pro
 725 730 735
 Val Pro His Pro Ile Leu Ile Arg Lys Tyr Gln Ala Asn Ser Gly Thr
 740 745 750
 Ala Met Trp Phe Arg Thr Tyr Met Trp Gly Val Ile Tyr Leu Arg Asn
 755 760 765
 Val Asp Pro Pro Val Trp Tyr Asp Thr Asp Val Lys Leu Phe Glu Ile
 770 775 780
 Gln Arg Val *
 785 787

<210> 1916

<211> 474

<212> PRT

<213> Homo sapiens

<400> 1916

Met Gln Asn Lys Val Pro Ile Pro Ala Pro Asn Glu Val Leu Asn Asp
 1 5 10 15

Arg Lys Glu Asp Ile Lys Leu Glu Glu Lys Lys Lys Thr Gln Ala Glu
 20 25 30
 Ile Glu Gln Glu Met Ala Thr Leu Gln Tyr Thr Asn Pro Gln Leu Leu
 35 40 45
 Glu Gln Leu Lys Ile Glu Arg Leu Ala Gln Lys Gln Val Glu Gln Ile
 50 55 60
 Gln Pro Pro Pro Ser Ser Gly Thr Pro Leu Leu Gly Pro Gln Pro Phe
 65 70 75 80
 Pro Gly Gln Gly Pro Met Ser Gln Ile Pro Gln Gly Phe Gln Gln Pro
 85 90 95
 His Pro Ser Gln Gln Met Pro Met Asn Met Ala Gln Met Gly Pro Pro
 100 105 110
 Gly Pro Gln Gly Gln Phe Arg Pro Gly Pro Gln Gly Gln Met Gly
 115 120 125
 Pro Gln Gly Pro Pro Leu His Gln Gly Gly Gly Gly Pro Gln Gly Phe
 130 135 140
 Met Gly Pro Gln Gly Pro Gln Gly Pro Pro Gln Gly Leu Pro Arg Pro
 145 150 155 160
 Gln Asp Met His Gly Pro Gln Gly Met Gln Arg His Pro Gly Pro His
 165 170 175
 Gly Pro Leu Gly Pro Gln Gly Pro Pro Gly Pro Gln Gly Ser Ser Gly
 180 185 190
 Pro Gln Gly His Met Gly Pro Gln Gly Pro Pro Gly Pro Gln Gly His
 195 200 205
 Ile Gly Pro Gln Gly Pro Pro Gly Pro Gln Gly His Leu Gly Pro Gln
 210 215 220
 Gly Pro Pro Gly Thr Gln Gly Met Gln Gly Pro Pro Gly Pro Arg Gly
 225 230 235 240
 Met Gln Gly Pro Pro His Pro His Gly Ile Gln Gly Gly Pro Gly Ser
 245 250 255
 Gln Gly Ile Gln Gly Pro Val Ser Gln Gly Pro Leu Met Gly Leu Asn
 260 265 270
 Pro Arg Gly Met Gln Gly Pro Pro Gly Pro Arg Glu Asn Gln Gly Pro
 275 280 285
 Ala Pro Gln Gly Met Ile Met Gly His Pro Pro Gln Glu Met Arg Gly
 290 295 300
 Pro His Pro Pro Gly Gly Leu Leu Gly His Gly Pro Gln Glu Met Arg
 305 310 315 320
 Gly Pro Gln Glu Ile Arg Gly Met Gln Gly Pro Pro Pro Gln Gly Ser
 325 330 335
 Met Leu Gly Pro Pro Gln Glu Leu Arg Gly Pro Pro Gly Ser Gln Ser
 340 345 350
 Gln Gln Gly Pro Pro Gln Gly Ser Leu Gly Pro Pro Pro Gln Gly Gly
 355 360 365
 Met Gln Gly Pro Pro Gly Pro Gln Gly Gln Gln Asn Pro Ala Arg Gly
 370 375 380
 Pro His Pro Ser Gln Gly Pro Ile Pro Phe Gln Gln Gln Lys Thr Pro
 385 390 395 400
 Leu Leu Gly Asp Gly Pro Arg Ala Pro Phe Asn Gln Glu Gly Gln Ser
 405 410 415
 Thr Gly Pro Pro Pro Leu Ile Pro Gly Leu Gly Gln Gln Gly Ala Gln
 420 425 430
 Gly Arg Ile Pro Pro Leu Asn Pro Gly Gln Gly Pro Gly Pro Asn Lys
 435 440 445
 Val Ser Glu Glu Glu Pro Arg Arg Gly Met Arg Ala Val Leu Pro Pro
 450 455 460
 Glu Glu Gly Met Val Phe Leu Val Leu *
 465 470 473

<210> 1917

<211> 306

<212> PRT

<213> Homo sapiens

<400> 1917

```

Met Tyr Asn Met Met Glu Thr Glu Leu Lys Pro Pro Gly Pro Gln Gln
 1      5      10      15
Thr Ser Gly Gly Gly Gly Asn Ser Thr Ala Ala Ala Ala Gly Gly
 20      25      30
Asn Gln Lys Asn Ser Pro Asp Arg Val Lys Arg Pro Met Asn Ala Phe
 35      40      45
Met Val Trp Ser Arg Gly Gln Arg Arg Lys Met Ala Gln Glu Asn Pro
 50      55      60
Lys Met His Asn Ser Glu Ile Ser Lys Arg Leu Gly Ala Glu Trp Lys
 65      70      75      80
Leu Leu Ser Glu Thr Glu Lys Arg Pro Phe Ile Asp Glu Ala Lys Arg
 85      90      95
Leu Arg Ala Leu His Met Lys Glu His Pro Asp Tyr Lys Tyr Arg Pro
100      105      110
Arg Arg Lys Thr Lys Thr Leu Met Lys Lys Asp Lys Tyr Thr Leu Pro
115      120      125
Gly Gly Leu Leu Ala Pro Gly Gly Asn Ser Met Ala Ser Gly Val Gly
130      135      140
Val Gly Ala Gly Leu Gly Ala Gly Val Asn Gln Arg Met Asp Ser Tyr
145      150      155      160
Ala His Met Asn Gly Trp Ser Asn Gly Ser Tyr Ser Met Met Gln Asp
165      170      175
Gln Leu Gly Tyr Pro Gln His Pro Gly Leu Asn Ala His Gly Ala Ala
180      185      190
Gln Met Gln Pro Met His Arg Tyr Asp Val Ser Ala Leu Gln Tyr Asn
195      200      205
Ser Met Thr Ser Met Ser Tyr Ser Gln Gln Gly Thr Pro Gly Met Ala
210      215      220
Leu Gly Ser Met Gly Ser Val Val Lys Ser Glu Ala Ser Ser Ser Pro
225      230      235      240
Pro Val Val Thr Ser Ser His Ser Arg Ala Pro Cys Gln Ala Gly
245      250      255
Asp Leu Arg Asp Met Ile Ser Met Tyr Leu Pro Gly Ala Glu Val Pro
260      265      270
Glu Pro Ala Ala Pro Ser Arg Leu His Met Ser Gln His Tyr Gln Ser
275      280      285
Gly Pro Val Pro Gly Thr Ala Ile Asn Gly Thr Leu Pro Leu Ser His
290      295      300
Met *
305

```

<210> 1918

<211> 616

<212> PRT

<213> Homo sapiens

<400> 1918

```

Met Glu Thr Thr Leu Ala Ile Ser Thr Thr Thr Pro Gly Leu Ser Ala
 1      5      10      15
Lys Gly Gly Ile Leu Tyr Ser Ser Ser Arg Ser Pro Glu Glu Thr Leu
 20      25      30
Ser Pro Ala Ser Met Arg Ser Ser Ser Ile Ser Gly Glu Pro Thr Ser
 35      40      45
Leu Tyr Ser Gln Ala Glu Ser Thr His Thr Thr Ala Phe Pro Ala Ser
 50      55      60
Thr Thr Thr Ser Gly Leu Ser Gln Glu Ser Thr Thr Phe His Ser Lys
 65      70      75      80

```

Pro Gly Ser Thr Glu Thr Thr Leu Ser Pro Gly Ser Ile Thr Thr Ser
 85 90 95
 Ser Phe Ala Gln Glu Phe Thr Thr Pro His Ser Gln Pro Gly Ser Ala
 100 105 110
 Leu Ser Thr Val Ser Pro Ala Ser Thr Thr Val Pro Gly Leu Ser Glu
 115 120 125
 Glu Ser Thr Thr Phe Tyr Ser Ser Pro Gly Ser Thr Glu Thr Thr Ala
 130 135 140
 Phe Ser His Ser Asn Thr Met Ser Ile His Ser Gln Gln Ser Thr Pro
 145 150 155 160
 Phe Pro Asp Ser Pro Gly Phe Thr His Thr Val Leu Pro Ala Thr Leu
 165 170 175
 Thr Thr Thr Asp Ile Gly Gln Glu Ser Thr Ala Phe His Ser Ser Ser
 180 185 190
 Asp Ala Thr Gly Thr Thr Pro Leu Pro Ala Arg Ser Thr Ala Ser Asp
 195 200 205
 Leu Val Gly Glu Pro Thr Thr Phe Tyr Ile Ser Pro Ser Pro Thr Tyr
 210 215 220
 Thr Thr Leu Phe Pro Ala Ser Ser Ser Thr Ser Gly Leu Thr Glu Glu
 225 230 235 240
 Ser Thr Thr Phe His Thr Ser Pro Ser Phe Thr Ser Thr Ile Val Ser
 245 250 255
 Thr Glu Ser Leu Glu Thr Leu Ala Pro Gly Leu Cys Gln Glu Gly Gln
 260 265 270
 Ile Trp Asn Gly Lys Gln Cys Val Cys Pro Gln Gly Tyr Val Gly Tyr
 275 280 285
 Gln Cys Leu Ser Pro Leu Glu Ser Phe Pro Val Glu Thr Pro Glu Lys
 290 295 300
 Leu Asn Ala Thr Leu Gly Met Thr Val Lys Val Thr Tyr Arg Asn Phe
 305 310 315 320
 Thr Glu Lys Met Asn Asp Ala Ser Ser Gln Glu Tyr Gln Asn Phe Ser
 325 330 335
 Thr Leu Phe Lys Asn Arg Met Asp Val Val Leu Lys Gly Asp Asn Leu
 340 345 350
 Pro Gln Tyr Arg Gly Val Asn Ile Arg Arg Leu Leu Asn Gly Ser Ile
 355 360 365
 Val Val Lys Asn Asp Val Ile Leu Glu Ala Asp Tyr Thr Leu Glu Tyr
 370 375 380
 Glu Glu Leu Phe Glu Asn Leu Ala Glu Ile Val Lys Ala Lys Ile Met
 385 390 395 400
 Asn Glu Thr Arg Thr Thr Leu Leu Asp Pro Asp Ser Cys Arg Lys Ala
 405 410 415
 Ile Leu Cys Tyr Ser Glu Glu Asp Thr Phe Val Asp Ser Ser Val Thr
 420 425 430
 Pro Gly Phe Asp Phe Gln Glu Gln Cys Thr Gln Lys Ala Ala Glu Gly
 435 440 445
 Tyr Thr Gln Phe Tyr Tyr Val Asp Val Leu Asp Gly Lys Leu Ala Cys
 450 455 460
 Val Asn Lys Cys Thr Lys Gly Thr Lys Ser Gln Met Asn Cys Asn Leu
 465 470 475 480
 Gly Thr Cys Gln Leu Gln Arg Ser Gly Pro Arg Cys Leu Cys Pro Asn
 485 490 495
 Thr Asn Thr His Trp Tyr Trp Gly Glu Thr Cys Glu Phe Asn Ile Ala
 500 505 510
 Lys Ser Leu Val Tyr Gly Ile Val Gly Ala Val Met Ala Val Leu Leu
 515 520 525
 Leu Ala Leu Ile Ile Leu Ile Leu Phe Ser Leu Ser Gln Arg Lys
 530 535 540
 Arg His Arg Glu Gln Tyr Asp Val Pro Gln Glu Trp Arg Lys Glu Gly
 545 550 555 560
 Thr Pro Gly Ile Phe Gln Lys Thr Ala Ile Trp Glu Asp Gln Asn Leu
 565 570 575
 Arg Glu Ser Arg Phe Gly Leu Glu Asn Ala Tyr Asn Asn Phe Arg Pro
 580 585 590

Thr Leu Glu Thr Val Asp Ser Gly Thr Glu Leu His Ile Gln Arg Pro
 595 600 605
 Glu Met Val Ala Ser Pro Val *
 610 615

<210> 1919
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 1919
 Met Ala Glu Gln Glu Ala Gln Pro Arg Pro Ser Leu Thr Thr Ala His
 1 5 10 15
 Ala Lys Lys Gln Gly Pro Pro His Ser Arg Glu Pro Arg Ala Glu Ser
 20 25 30
 Arg Leu Glu Asp Pro Gly Met Asp Ser Arg Glu Ala Gly Leu Thr Pro
 35 40 45
 Ser Pro Gly Asp Pro Met Ala Gly Gly Gly Pro Gln Ala Asn Pro Asp
 50 55 60
 Tyr Leu Phe His Val Ile Phe Leu Gly Asp Ser Asn Val Gly Lys Thr
 65 70 75 80
 Ser Phe Leu His Leu Leu His Gln Asn Ser Phe Ala Thr Gly Leu Thr
 85 90 95
 Ala Thr Val Gly Val Asp Phe Arg Val Lys Thr Leu Leu Val Asp Asn
 100 105 110
 Lys Cys Phe Val Leu Gln Leu Trp Asp Thr Ala Gly Gln Glu Arg Tyr
 115 120 125
 His Ser Met Thr Arg Gln Leu Leu Arg Lys Ala Asp Gly Val Val Leu
 130 135 140
 Met Tyr Asp Ile Thr Ser Gln Glu Ser Phe Ala His Val Arg Tyr Trp
 145 150 155 160
 Leu Asp Cys Leu Gln Asp Ala Gly Ser Asp Gly Val Val Ile Leu Leu
 165 170 175
 Leu Gly Asn Lys Met Asp Cys Glu Glu Glu Arg Gln Val Ser Val Glu
 180 185 190
 Ala Gly Gln Gln Leu Ala Gln Glu Leu Gly Val Tyr Phe Gly Glu Cys
 195 200 205
 Ser Ala Ala Leu Gly His Asn Ile Leu Glu Pro Val Val Asn Leu Ala
 210 215 220
 Arg Ser Leu Arg Met Gln Glu Glu Gly Leu Lys Gly Ser Leu Val Lys
 225 230 235 240
 Val Ala Pro Lys Arg Pro Pro Lys Arg Phe Gly Cys Cys Ser *
 245 250 254

<210> 1920
 <211> 952
 <212> PRT
 <213> Homo sapiens

<400> 1920
 Met Ser Lys Ser Lys Ser Asp Asn Gln Ile Ser Asp Arg Ala Ala Leu
 1 5 10 15
 Glu Ala Lys Val Lys Asp Leu Leu Thr Leu Ala Lys Thr Lys Asp Val
 20 25 30
 Glu Ile Leu His Leu Arg Asn Glu Leu Arg Asp Met Arg Ala Gln Leu
 35 40 45
 Gly Ile Asn Glu Asp His Ser Glu Gly Asp Glu Lys Ser Glu Lys Glu
 50 55 60


```

Thr Ile Met Ala His Gln Pro Thr Asp Val Glu Ser Thr Leu Leu Gln
65          70          75          80
Leu Gln Glu Gln Asn Thr Ala Ile Arg Glu Glu Leu Asn Gln Leu Lys
          85          90          95
Asn Glu Asn Arg Met Leu Lys Asp Arg Leu Asn Ala Leu Gly Phe Ser
          100          105          110
Leu Glu Gln Arg Leu Asp Asn Ser Glu Lys Leu Phe Gly Tyr Gln Ser
          115          120          125
Leu Ser Pro Glu Ile Thr Pro Gly Asn Gln Ser Asp Gly Gly Gly Thr
          130          135          140
Leu Thr Ser Ser Val Glu Gly Ser Ala Pro Gly Ser Val Glu Asp Leu
145          150          155          160
Leu Ser Gln Asp Glu Asn Thr Leu Met Asp His Gln His Ser Asn Ser
          165          170          175
Met Asp Asn Leu Asp Ser Glu Cys Ser Glu Val Tyr Gln Pro Leu Thr
          180          185          190
Ser Ser Asp Asp Ala Leu Asp Ala Pro Ser Ser Ser Glu Ser Glu Gly
          195          200          205
Ile Pro Ser Ile Glu Arg Ser Arg Lys Gly Ser Ser Gly Asn Ala Ser
210          215          220
Glu Val Ser Val Ala Cys Leu Thr Glu Arg Ile His Gln Met Glu Glu
225          230          235          240
Asn Gln His Ser Thr Ser Glu Glu Leu Gln Ala Thr Leu Gln Glu Leu
          245          250          255
Ala Asp Leu Gln Gln Ile Thr Gln Glu Leu Asn Ser Glu Asn Glu Arg
          260          265          270
Leu Gly Glu Glu Lys Val Ile Leu Met Glu Ser Leu Cys Gln Gln Ser
          275          280          285
Asp Lys Leu Glu His Phe Ser Arg Gln Ile Glu Tyr Phe Arg Ser Leu
290          295          300
Leu Asp Glu His His Ile Ser Tyr Val Ile Asp Glu Asp Val Lys Ser
305          310          315          320
Gly Arg Tyr Met Glu Leu Glu Gln Arg Tyr Met Asp Leu Ala Glu Asn
          325          330          335
Ala Arg Phe Glu Arg Glu Gln Leu Leu Gly Val Gln Gln His Leu Ser
          340          345          350
Asn Thr Leu Lys Met Ala Glu Gln Asp Asn Lys Glu Ala Gln Glu Met
          355          360          365
Ile Gly Ala Leu Lys Glu Arg Ser His His Met Glu Arg Ile Ile Glu
370          375          380
Ser Glu Gln Lys Gly Lys Ala Ala Leu Ala Ala Thr Leu Glu Glu Tyr
385          390          395          400
Lys Ala Thr Val Ala Ser Asp Gln Ile Glu Met Asn Arg Leu Lys Ala
          405          410          415
Gln Leu Glu Asn Glu Lys Gln Lys Val Ala Glu Leu Tyr Ser Ile His
          420          425          430
Asn Ser Gly Asp Lys Ser Asp Ile Gln Asp Leu Leu Glu Ser Val Arg
          435          440          445
Leu Asp Lys Glu Lys Ala Glu Thr Leu Ala Ser Ser Leu Gln Glu Asp
          450          455          460
Leu Ala His Thr Arg Asn Asp Ala Asn Arg Leu Gln Asp Ala Ile Ala
465          470          475          480
Lys Val Glu Asp Glu Tyr Arg Ala Phe Gln Glu Glu Ala Lys Lys Gln
          485          490          495
Ile Glu Asp Leu Asn Met Thr Leu Glu Lys Leu Arg Ser Asp Leu Asp
          500          505          510
Glu Lys Glu Thr Glu Arg Ser Asp Met Lys Glu Thr Ile Phe Glu Leu
          515          520          525
Glu Asp Glu Val Glu Gln His Arg Ala Val Lys Leu His Asp Asn Leu
          530          535          540
Ile Ile Ser Asp Leu Glu Asn Thr Val Lys Lys Leu Gln Asp Gln Lys
545          550          555          560
His Asp Met Glu Arg Glu Ile Lys Thr Leu His Arg Arg Leu Arg Glu
          565          570          575

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Glu Ser Ala Glu Trp Arg Gln Phe Gln Ala Asp Leu Gln Thr Ala Val
 580 585 590
 Val Ile Ala Asn Asp Ile Lys Ser Glu Ala Gln Glu Glu Ile Gly Asp
 595 600 605
 Leu Lys Arg Arg Leu His Glu Ala Gln Glu Lys Asn Glu Lys Leu Thr
 610 615 620
 Lys Glu Leu Glu Glu Ile Lys Ser Arg Lys Gln Glu Glu Glu Arg Gly
 625 630 635 640
 Arg Val Tyr Asn Tyr Met Asn Ala Val Glu Arg Asp Leu Ala Ala Leu
 645 650 655
 Arg Gln Gly Met Gly Leu Ser Arg Arg Ser Ser Thr Ser Ser Glu Pro
 660 665 670
 Thr Pro Thr Val Lys Thr Leu Ile Lys Ser Phe Asp Ser Ala Ser Gln
 675 680 685
 Val Pro Asn Pro Ala Ala Ala Ile Pro Arg Thr Pro Leu Ser Pro
 690 695 700
 Ser Pro Met Lys Thr Pro Pro Ala Ala Ala Val Ser Pro Met Gln Arg
 705 710 715 720
 His Ser Ile Ser Gly Pro Ile Ser Thr Ser Lys Pro Leu Thr Ala Leu
 725 730 735
 Ser Asp Lys Arg Pro Asn Tyr Gly Glu Ile Pro Val Gln Glu His Leu
 740 745 750
 Leu Arg Thr Ser Ser Ala Ser Arg Pro Ala Ser Leu Pro Arg Val Pro
 755 760 765
 Ala Met Glu Ser Ala Lys Thr Leu Ser Val Ser Arg Arg Ser Ser Glu
 770 775 780
 Glu Met Lys Arg Asp Ile Ser Ala Gln Glu Gly Ala Ser Pro Ala Ser
 785 790 795 800
 Leu Met Ala Met Gly Thr Thr Ser Pro Gln Leu Ser Leu Ser Ser Ser
 805 810 815
 Pro Thr Ala Ser Val Thr Pro Thr Thr Arg Ser Arg Ile Arg Glu Glu
 820 825 830
 Arg Lys Asp Pro Leu Ser Ala Leu Ala Arg Glu Tyr Gly Gly Ser Lys
 835 840 845
 Arg Asn Ala Leu Leu Lys Trp Cys Gln Lys Lys Thr Glu Gly Tyr Gln
 850 855 860
 Asn Ile Asp Ile Thr Asn Phe Ser Ser Ser Trp Asn Asp Gly Leu Ala
 865 870 875 880
 Phe Cys Ala Leu Leu His Thr Tyr Leu Pro Ala His Ile Pro Tyr Gln
 885 890 895
 Glu Leu Asn Ser Gln Asp Lys Arg Arg Asn Phe Met Leu Ala Phe Gln
 900 905 910
 Ala Ala Glu Ser Val Gly Ile Lys Ser Thr Leu Asp Ile Asn Glu Met
 915 920 925
 Val Arg Thr Glu Arg Pro Asp Trp Gln Asn Val Met Leu Tyr Val Thr
 930 935 940
 Ala Ile Tyr Lys Tyr Phe Glu Thr
 945 950 952

<210> 1921

<211> 767

<212> PRT

<213> Homo sapiens

<400> 1921

Met Phe Leu Pro Glu Asp Lys Ser Tyr Asn Gly Gly Gly Ile Gly Ser
 1 5 10 15
 Ser Asn Arg Ile Met Asp Phe Leu Glu Glu Pro Ile Pro Gly Val Gly
 20 25 30
 Thr Tyr Asp Asp Phe Asn Thr Ile Asp Trp Val Arg Glu Lys Ser Arg
 35 40 45

Asp	Arg	Asp	Arg	His	Arg	Glu	Ile	Thr	Asn	Lys	Ser	Lys	Glu	Ser	Thr
50						55					60				
Trp	Ala	Leu	Ile	His	Ser	Val	Ser	Asp	Ala	Phe	Ser	Gly	Trp	Leu	Leu
65				70						75					80
Met	Leu	Leu	Ile	Gly	Leu	Leu	Ser	Gly	Ser	Leu	Ala	Gly	Leu	Ile	Asp
				85					90					95	
Ile	Ser	Ala	His	Trp	Met	Thr	Asp	Leu	Lys	Glu	Gly	Ile	Cys	Thr	Gly
		100					105						110		
Gly	Phe	Trp	Phe	Asn	His	Glu	His	Cys	Cys	Trp	Asn	Ser	Glu	His	Val
	115					120						125			
Thr	Phe	Glu	Glu	Arg	Asp	Lys	Cys	Pro	Glu	Trp	Asn	Ser	Trp	Ser	Gln
130					135						140				
Leu	Ile	Ile	Ser	Thr	Asp	Glu	Gly	Ala	Phe	Ala	Tyr	Ile	Val	Asn	Tyr
145					150					155					160
Phe	Met	Tyr	Val	Leu	Trp	Ala	Leu	Leu	Phe	Ala	Phe	Leu	Ala	Val	Ser
				165					170					175	
Leu	Val	Lys	Val	Phe	Ala	Pro	Tyr	Ala	Cys	Gly	Ser	Gly	Ile	Pro	Glu
		180						185					190		
Ile	Lys	Thr	Ile	Leu	Ser	Gly	Phe	Ile	Ile	Arg	Gly	Tyr	Leu	Gly	Lys
	195					200						205			
Trp	Thr	Leu	Val	Ile	Lys	Thr	Ile	Thr	Leu	Val	Leu	Ala	Val	Ser	Ser
210					215							220			
Gly	Leu	Ser	Leu	Gly	Lys	Glu	Gly	Pro	Leu	Val	His	Val	Ala	Cys	Cys
225					230						235				240
Cys	Gly	Asn	Ile	Leu	Cys	His	Cys	Phe	Asn	Lys	Tyr	Arg	Lys	Asn	Glu
				245					250					255	
Ala	Lys	Arg	Arg	Glu	Val	Leu	Ser	Ala	Ala	Ala	Ala	Ala	Gly	Val	Ser
				260				265						270	
Val	Ala	Phe	Gly	Ala	Pro	Ile	Gly	Gly	Val	Leu	Phe	Ser	Leu	Glu	Glu
	275						280						285		
Val	Ser	Tyr	Tyr	Phe	Pro	Leu	Lys	Thr	Leu	Trp	Arg	Ser	Phe	Phe	Ala
290					295						300				
Ala	Leu	Val	Ala	Ala	Phe	Thr	Leu	Arg	Ser	Ile	Asn	Pro	Phe	Gly	Asn
305					310					315					320
Ser	Arg	Leu	Val	Leu	Phe	Tyr	Val	Glu	Phe	His	Thr	Pro	Trp	His	Leu
				325					330					335	
Phe	Glu	Leu	Val	Pro	Phe	Ile	Leu	Leu	Gly	Ile	Phe	Gly	Gly	Leu	Trp
			340					345					350		
Gly	Ala	Leu	Phe	Ile	Arg	Thr	Asn	Ile	Ala	Trp	Cys	Arg	Lys	Arg	Lys
	355					360						365			
Thr	Thr	Gln	Leu	Gly	Lys	Tyr	Pro	Val	Ile	Glu	Val	Leu	Val	Val	Thr
370					375							380			
Ala	Ile	Thr	Ala	Ile	Leu	Ala	Phe	Pro	Asn	Glu	Tyr	Thr	Arg	Met	Ser
385					390					395					400
Thr	Ser	Glu	Leu	Ile	Ser	Glu	Leu	Phe	Asn	Asp	Cys	Gly	Leu	Leu	Asp
				405					410					415	
Ser	Ser	Lys	Leu	Cys	Asp	Tyr	Glu	Asn	Arg	Phe	Asn	Thr	Ser	Lys	Gly
			420					425					430		
Gly	Glu	Leu	Pro	Asp	Arg	Pro	Ala	Gly	Val	Gly	Val	Tyr	Ser	Ala	Met
	435					440						445			
Trp	Gln	Leu	Ala	Leu	Thr	Leu	Ile	Leu	Lys	Ile	Val	Ile	Thr	Ile	Phe
450						455						460			
Thr	Phe	Gly	Met	Lys	Ile	Pro	Ser	Gly	Leu	Phe	Ile	Pro	Ser	Met	Ala
465					470					475					480
Val	Gly	Ala	Ile	Ala	Gly	Arg	Leu	Leu	Gly	Val	Gly	Met	Glu	Gln	Leu
				485					490					495	
Ala	Tyr	Tyr	His	Gln	Glu	Trp	Thr	Val	Phe	Asn	Ser	Trp	Cys	Ser	Gln
			500					505					510		
Gly	Ala	Asp	Cys	Ile	Thr	Pro	Gly	Leu	Tyr	Ala	Met	Val	Gly	Ala	Ala
	515					520						525			
Ala	Cys	Leu	Gly	Gly	Val	Thr	Arg	Met	Thr	Val	Ser	Leu	Val	Val	Ile
	530					535					540				
Met	Phe	Glu	Leu	Thr	Gly	Gly	Leu	Glu	Tyr	Ile	Val	Pro	Leu	Met	Ala
545					550					555					560

Ala Ala Met Thr Ser Lys Trp Val Ala Asp Ala Leu Gly Arg Glu Gly
565 570 575
Ile Tyr Asp Ala His Ile Arg Leu Asn Gly Tyr Pro Phe Leu Glu Ala
580 585 590
Lys Glu Glu Phe Ala His Lys Thr Leu Ala Met Asp Val Met Lys Pro
595 600 605
Arg Arg Asn Asp Pro Leu Leu Thr Val Leu Thr Gln Asp Ser Met Thr
610 615 620
Val Glu Asp Val Glu Thr Ile Ile Ser Glu Thr Thr Tyr Ser Gly Phe
625 630 635 640
Pro Val Val Val Ser Arg Glu Ser Gln Arg Leu Val Gly Phe Val Leu
645 650 655
Arg Arg Asp Leu Ile Ile Ser Ile Glu Asn Ala Arg Lys Lys Gln Asp
660 665 670
Gly Val Val Ser Thr Ser Ile Ile Tyr Phe Thr Glu His Ser Pro Pro
675 680 685
Leu Pro Pro Tyr Thr Pro Pro Thr Leu Lys Leu Arg Asn Ile Leu Asp
690 695 700
Leu Ser Pro Phe Thr Val Thr Asp Leu Thr Pro Met Glu Ile Val Val
705 710 715 720
Asp Ile Phe Arg Lys Leu Gly Leu Arg Gln Cys Leu Val Thr His Asn
725 730 735
Gly Arg Leu Leu Gly Ile Ile Thr Lys Lys Asp Val Leu Lys His Ile
740 745 750
Ala Gln Met Ala Asn Gln Asp Pro Asp Ser Ile Leu Phe Asn *
755 760 765 766

<210> 1922

<211> 344

<212> PRT

<213> Homo sapiens

<400> 1922

Met Ser Arg Ala Gly Ser Trp Asp Met Asp Gly Leu Arg Ala Asp Gly
1 5 10 15
Gly Gly Ala Gly Gly Ala Pro Ala Ser Ser Ser Ser Ser Val Ala
20 25 30
Ala Ala Ala Ala Ser Gly Gln Cys Arg Gly Phe Leu Ser Ala Pro Val
35 40 45
Phe Ala Gly Thr His Ser Gly Arg Ala Ala Ala Ala Ala Ala Ala
50 55 60
Ala Ala Ala Ala Ala Ala Ala Ser Gly Phe Ala Tyr Pro Gly Thr Ser
65 70 75 80
Glu Arg Thr Gly Ser Ser Ser Ser Ser Ser Ser Ala Val Val Ala
85 90 95
Ala Arg Pro Glu Ala Pro Pro Ala Lys Glu Cys Pro Ala Pro Thr Pro
100 105 110
Ala Ala Ala Ala Ala Ala Pro Pro Ser Ala Pro Ala Leu Gly Tyr Gly
115 120 125
Tyr His Phe Gly Asn Gly Tyr Tyr Ser Cys Arg Met Ser His Gly Val
130 135 140
Gly Leu Gln Gln Asn Ala Leu Lys Ser Ser Pro His Ala Ser Leu Gly
145 150 155 160
Gly Phe Pro Val Glu Lys Tyr Met Asp Val Ser Gly Leu Ala Ser Ser
165 170 175
Ser Val Pro Ala Asn Glu Val Pro Ala Arg Ala Lys Glu Val Ser Phe
180 185 190
Tyr Gln Gly Tyr Thr Ser Pro Tyr Gln His Val Pro Gly Tyr Ile Asp
195 200 205
Met Val Ser Thr Phe Gly Ser Gly Glu Pro Arg His Glu Ala Tyr Ile
210 215 220

Ser Met Glu Gly Tyr Gln Ser Trp Thr Leu Ala Asn Gly Trp Asn Ser
 225 230 235 240
 Gln Val Tyr Cys Thr Lys Asp Gln Pro Gln Gly Ser His Phe Trp Lys
 245 250 255
 Ser Ser Phe Pro Gly Asp Val Ala Leu Asn Gln Pro Asp Met Cys Val
 260 265 270
 Tyr Arg Arg Gly Arg Lys Lys Arg Val Pro Tyr Thr Lys Leu Gln Leu
 275 280 285
 Lys Glu Leu Glu Asn Glu Tyr Ala Ile Asn Lys Phe Ile Asn Lys Asp
 290 295 300
 Lys Arg Arg Arg Ile Ser Ala Ala Thr Asn Leu Ser Glu Arg Gln Val
 305 310 315 320
 Thr Ile Trp Phe Gln Asn Arg Arg Val Lys Asp Lys Lys Ile Val Ser
 325 330 335
 Lys Leu Lys Asp Thr Val Ser *
 340 343

<210> 1923

<211> 952

<212> PRT

<213> Homo sapiens

<400> 1923

Met Ala Asp Leu Ser Leu Leu Gln Glu Asp Leu Gln Glu Asp Ala Asp
 1 5 10 15
 Gly Phe Gly Val Asp Asp Tyr Ser Ser Glu Ser Asp Val Ile Ile Ile
 20 25 30
 Pro Ser Ala Leu Asp Phe Val Ser Gln Asp Glu Met Leu Thr Pro Leu
 35 40 45
 Gly Arg Leu Asp Lys Tyr Ala Ala Ser Glu Asn Ile Phe Asn Gln Thr
 50 55 60
 Lys Trp Trp Pro Arg Ser Leu Leu Asp Thr Leu Arg Glu Val Cys Asp
 65 70 75 80
 Asp Glu Arg Asp Cys Ile Ala Val Leu Glu Arg Ile Ser Arg Leu Ala
 85 90 95
 Asp Asp Ser Glu Pro Thr Val Arg Ala Glu Leu Met Glu Gln Val Pro
 100 105 110
 His Ile Ala Leu Phe Cys Gln Glu Asn Arg Pro Ser Ile Pro Tyr Ala
 115 120 125
 Phe Ser Lys Phe Leu Leu Pro Ile Val Val Arg Tyr Leu Ala Asp Gln
 130 135 140
 Asn Asn Gln Val Arg Lys Thr Ser Gln Ala Ala Leu Leu Ala Leu Leu
 145 150 155 160
 Glu Gln Glu Leu Ile Glu Arg Phe Asp Val Glu Thr Lys Val Cys Pro
 165 170 175
 Val Leu Ile Glu Leu Thr Ala Pro Asp Ser Asn Asp Asp Val Lys Thr
 180 185 190
 Glu Ala Val Ala Ile Met Cys Lys Met Ala Pro Met Val Gly Lys Asp
 195 200 205
 Ile Thr Glu Arg Leu Ile Leu Pro Arg Phe Cys Glu Met Cys Cys Asp
 210 215 220
 Cys Arg Met Phe His Val Arg Lys Val Cys Ala Ala Asn Phe Gly Asp
 225 230 235 240
 Ile Cys Ser Val Val Gly Gln Gln Ala Thr Glu Glu Met Leu Leu Pro
 245 250 255
 Arg Phe Phe Gln Leu Cys Ser Asp Asn Val Trp Gly Val Arg Lys Ala
 260 265 270
 Cys Ala Glu Cys Phe Met Ala Val Ser Cys Ala Thr Cys Gln Glu Ile
 275 280 285
 Arg Arg Thr Lys Leu Ser Ala Leu Phe Ile Asn Leu Ile Ser Asp Pro
 290 295 300

Ser	Arg	Trp	Val	Arg	Gln	Ala	Ala	Phe	Gln	Ser	Leu	Gly	Pro	Phe	Ile
305					310					315					320
Ser	Thr	Phe	Ala	Asn	Pro	Ser	Ser	Ser	Gly	Gln	Tyr	Phe	Lys	Glu	Glu
				325					330						335
Ser	Lys	Ser	Ser	Glu	Glu	Met	Ser	Val	Glu	Asn	Lys	Asn	Arg	Thr	Arg
				340					345						350
Asp	Gln	Glu	Ala	Pro	Glu	Asp	Val	Gln	Val	Arg	Pro	Glu	Asp	Thr	Pro
				355					360						365
Ser	Asp	Leu	Ser	Val	Ser	Asn	Ser	Ser	Val	Ile	Leu	Glu	Asn	Thr	Met
				370					375						380
Glu	Asp	His	Ala	Ala	Glu	Ala	Ser	Gly	Lys	Pro	Leu	Gly	Glu	Ile	Ser
385					390					395					400
Val	Pro	Leu	Asp	Ser	Ser	Leu	Leu	Cys	Thr	Leu	Ser	Ser	Glu	Ser	His
				405					410						415
Gln	Glu	Ala	Ala	Ser	Asn	Glu	Asn	Asp	Lys	Lys	Pro	Gly	Asn	Tyr	Lys
				420					425						430
Ser	Met	Leu	Arg	Pro	Glu	Val	Gly	Thr	Thr	Ser	Gln	Asp	Ser	Ala	Leu
				435					440						445
Leu	Asp	Gln	Glu	Leu	Tyr	Asn	Ser	Phe	His	Phe	Trp	Arg	Thr	Pro	Leu
				450					455						460
Pro	Glu	Ile	Asp	Leu	Asp	Ile	Glu	Leu	Glu	Gln	Asn	Ser	Gly	Gly	Lys
465					470					475					480
Pro	Ser	Pro	Glu	Gly	Pro	Glu	Glu	Glu	Ser	Glu	Gly	Pro	Val	Pro	Ser
				485					490						495
Ser	Pro	Asn	Ile	Thr	Met	Ala	Thr	Arg	Lys	Glu	Leu	Glu	Glu	Met	Ile
				500					505						510
Glu	Asn	Leu	Glu	Pro	His	Ile	Asp	Asp	Pro	Asp	Val	Lys	Ala	Gln	Val
				515					520						525
Glu	Val	Leu	Ser	Ala	Ala	Leu	Arg	Ala	Ser	Ser	Leu	Asp	Ala	His	Glu
				530					535						540
Glu	Thr	Ile	Ser	Ile	Glu	Lys	Arg	Ser	Asp	Leu	Gln	Asp	Glu	Leu	Asp
545					550					555					560
Ile	Asn	Glu	Leu	Pro	Asn	Cys	Lys	Ile	Asn	Gln	Glu	Asp	Ser	Val	Pro
				565					570						575
Leu	Ile	Ser	Asp	Ala	Val	Glu	Asn	Met	Asp	Ser	Thr	Leu	His	Tyr	Ile
				580					585						590
His	Ser	Asp	Ser	Asp	Leu	Ser	Asn	Asn	Ser	Ser	Phe	Ser	Pro	Asp	Glu
				595					600						605
Glu	Arg	Arg	Thr	Lys	Val	Gln	Asp	Val	Val	Pro	Gln	Ala	Leu	Leu	Asp
				610					615						620
Gln	Tyr	Leu	Ser	Met	Thr	Asp	Pro	Ser	Arg	Ala	Gln	Thr	Val	Asp	Thr
625					630					635					640
Glu	Ile	Ala	Lys	His	Cys	Ala	Tyr	Ser	Leu	Pro	Gly	Val	Ala	Leu	Thr
				645					650						655
Leu	Gly	Arg	Gln	Asn	Trp	His	Cys	Leu	Arg	Glu	Thr	Tyr	Glu	Thr	Leu
				660					665						670
Ala	Ser	Asp	Met	Gln	Trp	Lys	Val	Arg	Arg	Thr	Leu	Ala	Phe	Ser	Ile
				675					680						685
His	Glu	Leu	Ala	Val	Ile	Leu	Gly	Asp	Gln	Leu	Thr	Ala	Ala	Asp	Leu
				690					695						700
Val	Pro	Ile	Phe	Asn	Gly	Phe	Leu	Lys	Asp	Leu	Asp	Glu	Val	Arg	Ile
705					710					715					720
Gly	Val	Leu	Lys	His	Leu	His	Asp	Phe	Leu	Lys	Leu	Leu	His	Ile	Asp
				725					730						735
Lys	Arg	Arg	Glu	Tyr	Leu	Tyr	Gln	Leu	Gln	Glu	Phe	Leu	Val	Thr	Asp
				740					745						750
Asn	Ser	Arg	Asn	Trp	Arg	Phe	Arg	Ala	Glu	Leu	Ala	Glu	Gln	Leu	Ile
				755					760						765
Leu	Leu	Leu	Glu	Leu	Tyr	Ser	Pro	Arg	Asp	Val	Tyr	Asp	Tyr	Leu	Arg
				770					775						780
Pro	Ile	Ala	Leu	Asn	Leu	Cys	Ala	Asp	Lys	Val	Ser	Ser	Val	Arg	Trp
785					790					795					800
Ile	Ser	Tyr	Lys	Leu	Val	Ser	Glu	Met	Val	Lys	Lys	Leu	His	Ala	Ala
				805					810						815

Thr Pro Pro Thr Phe Gly Val Asp Leu Ile Asn Glu Leu Val Glu Asn
 820 825 830
 Phe Gly Arg Cys Pro Lys Trp Ser Gly Arg Gln Ala Phe Val Phe Val
 835 840 845
 Cys Gln Thr Val Ile Glu Asp Asp Cys Leu Pro Met Asp Gln Phe Ala
 850 855 860
 Val His Leu Met Pro His Leu Leu Thr Leu Ala Asn Asp Arg Val Pro
 865 870 875 880
 Asn Val Arg Val Leu Leu Ala Lys Thr Leu Arg Gln Thr Leu Leu Glu
 885 890 895
 Lys Asp Tyr Phe Leu Ala Ser Ala Ser Cys His Gln Glu Ala Val Glu
 900 905 910
 Gln Thr Ile Met Ala Leu Gln Met Asp Arg Asp Ser Asp Val Lys Tyr
 915 920 925
 Phe Ala Ser Ile His Pro Ala Ser Thr Lys Ile Ser Glu Asp Ala Met
 930 935 940
 Ser Thr Ala Ser Ser Thr Tyr *
 945 950 951

<210> 1924
 <211> 636
 <212> PRT
 <213> Homo sapiens

<400> 1924
 Met Ala Val Pro Pro Gly His Gly Pro Phe Ser Gly Phe Pro Gly Pro
 1 5 10 15
 Gln Glu His Thr Gln Val Leu Pro Asp Val Arg Leu Leu Pro Arg Arg
 20 25 30
 Leu Pro Leu Ala Phe Arg Asp Ala Thr Ser Ala Pro Leu Arg Lys Leu
 35 40 45
 Ser Val Asp Leu Ile Lys Thr Tyr Lys His Ile Asn Glu Val Tyr Tyr
 50 55 60
 Ala Lys Lys Lys Arg Arg Ala Gln Gln Ala Pro Pro Gln Asp Ser Ser
 65 70 75 80
 Asn Lys Lys Glu Lys Lys Val Leu Asn His Gly Tyr Asp Asp Asp Asn
 85 90 95
 His Asp Tyr Ile Val Arg Ser Gly Glu Arg Trp Leu Glu Arg Tyr Glu
 100 105 110
 Ile Asp Ser Leu Ile Gly Lys Gly Ser Phe Gly Gln Val Val Lys Ala
 115 120 125
 Tyr Asp His Gln Thr Gln Glu Leu Val Ala Ile Lys Ile Ile Lys Asn
 130 135 140
 Lys Lys Ala Phe Leu Asn Gln Ala Gln Ile Glu Leu Arg Leu Leu Glu
 145 150 155 160
 Leu Met Asn Gln His Asp Thr Glu Met Lys Tyr Tyr Ile Val His Leu
 165 170 175
 Lys Arg His Phe Met Phe Arg Asn His Leu Cys Leu Val Phe Glu Leu
 180 185 190
 Leu Ser Tyr Asn Leu Tyr Asp Leu Leu Arg Asn Thr His Phe Arg Gly
 195 200 205
 Val Ser Leu Asn Leu Thr Arg Lys Leu Ala Gln Gln Leu Cys Thr Ala
 210 215 220
 Leu Leu Phe Leu Ala Thr Pro Glu Leu Ser Ile Ile His Cys Asp Leu
 225 230 235 240
 Lys Pro Glu Asn Ile Leu Leu Cys Asn Pro Lys Arg Ser Ala Ile Lys
 245 250 255
 Ile Val Asp Phe Gly Ser Ser Cys Gln Leu Gly Gln Arg Ile Tyr Gln
 260 265 270
 Tyr Ile Gln Ser Arg Phe Tyr Arg Ser Pro Glu Val Leu Leu Gly Thr
 275 280 285

Pro Tyr Asp Leu Ala Ile Asp Met Trp Ser Leu Gly Cys Ile Leu Val
 290 295 300
 Glu Met His Thr Gly Glu Pro Leu Phe Ser Gly Ser Asn Glu Val Cys
 305 310 315 320
 Pro Gln Glu Gly Val Asp Gln Met Asn Arg Ile Val Glu Val Leu Gly
 325 330 335
 Ile Pro Pro Ala Ala Met Leu Asp Gln Ala Pro Lys Ala Arg Lys Tyr
 340 345 350
 Phe Glu Arg Leu Pro Gly Gly Gly Trp Thr Leu Arg Arg Thr Lys Glu
 355 360 365
 Leu Arg Lys Asp Tyr Gln Gly Pro Gly Thr Arg Arg Leu Gln Glu Val
 370 375 380
 Leu Gly Val Gln Thr Gly Gly Pro Gly Gly Arg Arg Ala Gly Glu Pro
 385 390 395 400
 Gly His Ser Pro Ala Asp Tyr Leu Arg Phe Gln Asp Leu Val Leu Arg
 405 410 415
 Met Leu Glu Tyr Glu Pro Ala Ala Arg Ile Ser Pro Leu Gly Ala Leu
 420 425 430
 Gln His Gly Phe Phe Arg Arg Thr Ala Asp Glu Ala Thr Asn Thr Gly
 435 440 445
 Pro Ala Gly Ser Ser Ala Ser Thr Ser Pro Ala Pro Leu Asp Thr Cys
 450 455 460
 Pro Ser Ser Ser Thr Ala Ser Ser Ile Ser Ser Gly Gly Ser Ser
 465 470 475 480
 Gly Ser Ser Ser Asp Asn Arg Thr Tyr Arg Tyr Ser Asn Arg Tyr Cys
 485 490 495
 Gly Gly Pro Gly Pro Pro Ile Thr Asp Cys Glu Met Asn Ser Pro Gln
 500 505 510
 Val Pro Pro Ser Gln Pro Leu Arg Pro Trp Ala Gly Gly Asp Val Pro
 515 520 525
 His Lys Thr His Gln Ala Pro Ala Ser Ala Ser Ser Leu Pro Gly Thr
 530 535 540
 Gly Ala Gln Leu Pro Pro Gln Pro Arg Tyr Leu Gly Arg Pro Pro Ser
 545 550 555 560
 Pro Thr Ser Pro Pro Pro Glu Leu Met Asp Val Ser Leu Val Gly
 565 570 575
 Gly Pro Ala Asp Cys Ser Pro Pro His Pro Ala Pro Ala Pro Gln His
 580 585 590
 Pro Ala Ala Ser Ala Leu Arg Thr Arg Met Thr Gly Gly Arg Pro Pro
 595 600 605
 Leu Pro Pro Pro Asp Asp Pro Ala Thr Leu Gly Pro His Leu Gly Leu
 610 615 620
 Arg Gly Val Pro Gln Ser Thr Ala Ala Ser Ser *
 625 630 635

<210> 1925

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1925

Met Asp Pro Ser Glu Ala Trp Ala Asn Ala Thr Cys Pro Gly Val Thr
 1 5 10 15
 Tyr Asp Gln Glu Ser His Gln Val Ile Leu Arg Leu Gly Asp His Glu
 20 25 30
 Phe Ile Lys Ser Leu Thr Pro Leu Glu Gly Thr Gln Asp Thr Phe Thr
 35 40 45
 Asn Phe Gln Gln Val Tyr Leu Trp Lys Asp Ser Asp Met Gly Ser Arg
 50 55 60
 Pro Glu Ser Met Gly Cys Arg Lys Asn Thr Val Pro Arg Pro Ala Ser
 65 70 75 80


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<210> 1926
<211> 1204
<212> PRT
<213> Homo sapiens
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3843

Glu Glu Cys Ser Arg Leu Gln Glu Leu Leu Glu Arg Arg Lys Gly Glu
 405 410 415
 Ala Gln Gln Ser Asn Lys Glu Leu Gln Asn Met Lys Arg Leu Leu Asp
 420 425 430
 Gln Gly Glu Asp Leu Arg His Gly Leu Glu Thr Gln Val Met Glu Leu
 435 440 445
 Gln Asn Lys Leu Lys His Val Gln Gly Pro Glu Pro Ala Lys Glu Val
 450 455 460
 Leu Leu Lys Asp Leu Leu Glu Thr Arg Glu Leu Leu Glu Glu Val Leu
 465 470 475 480
 Glu Gly Lys Gln Arg Val Glu Glu Gln Leu Arg Leu Arg Glu Arg Glu
 485 490 495
 Leu Thr Ala Leu Lys Gly Ala Leu Lys Glu Glu Val Ala Ser Arg Asp
 500 505 510
 Gln Glu Val Glu His Val Arg Gln Gln Tyr Gln Arg Asp Thr Glu Gln
 515 520 525
 Leu Arg Arg Ser Met Gln Asp Ala Thr Gln Asp His Ala Val Leu Glu
 530 535 540
 Ala Glu Arg Gln Lys Met Ser Ala Leu Val Arg Gly Leu Gln Arg Glu
 545 550 555 560
 Leu Glu Glu Thr Ser Glu Glu Thr Gly Arg Trp Gln Ser Met Phe Gln
 565 570 575
 Lys Asn Lys Glu Asp Leu Arg Ala Thr Lys Gln Glu Leu Leu Gln Leu
 580 585 590
 Arg Met Glu Lys Glu Glu Met Glu Glu Glu Leu Gly Glu Lys Ile Glu
 595 600 605
 Val Leu Gln Arg Glu Leu Glu Gln Ala Arg Ala Ser Ala Gly Asp Thr
 610 615 620
 Arg Gln Val Glu Val Leu Lys Lys Glu Leu Leu Arg Thr Gln Glu Glu
 625 630 635 640
 Leu Lys Glu Leu Gln Ala Glu Arg Gln Ser Gln Glu Val Ala Gly Arg
 645 650 655
 His Arg Asp Arg Glu Leu Glu Lys Gln Leu Ala Val Leu Arg Val Glu
 660 665 670
 Ala Asp Arg Gly Arg Glu Leu Glu Gln Asn Leu Gln Leu Gln Lys
 675 680 685
 Thr Leu Gln Gln Leu Arg Gln Asp Cys Glu Glu Ala Ser Lys Ala Lys
 690 695 700
 Met Val Ala Glu Ala Glu Ala Thr Val Leu Gly Gln Arg Arg Ala Ala
 705 710 715 720
 Val Glu Thr Thr Leu Arg Glu Thr Gln Glu Glu Asn Asp Glu Phe Arg
 725 730 735
 Arg Arg Ile Leu Gly Leu Glu Gln Gln Leu Lys Glu Thr Arg Gly Leu
 740 745 750
 Val Asp Gly Gly Glu Ala Val Glu Ala Arg Leu Arg Asp Lys Leu Gln
 755 760 765
 Arg Leu Glu Ala Glu Lys Gln Gln Leu Glu Glu Ala Leu Asn Ala Ser
 770 775 780
 Gln Glu Glu Glu Gly Ser Leu Ala Ala Ala Lys Arg Ala Leu Glu Ala
 785 790 795 800
 Arg Leu Glu Glu Ala Gln Arg Gly Leu Ala Arg Leu Gly Gln Glu Gln
 805 810 815
 Gln Thr Leu Asn Arg Ala Leu Glu Glu Glu Gly Lys Gln Arg Glu Val
 820 825 830
 Leu Arg Arg Gly Lys Ala Glu Leu Glu Glu Gln Lys Arg Leu Leu Asp
 835 840 845
 Arg Thr Val Asp Arg Leu Asn Lys Glu Leu Glu Lys Ile Gly Glu Asp
 850 855 860
 Ser Lys Gln Ala Leu Gln Gln Leu Gln Ala Gln Leu Glu Asp Tyr Lys
 865 870 875 880
 Glu Lys Ala Arg Arg Glu Val Ala Asp Ala Gln Arg Gln Ala Lys Asp
 885 890 895
 Trp Ala Ser Glu Ala Glu Lys Thr Ser Gly Gly Leu Ser Arg Leu Gln
 900 905 910

Asp Glu Ile Gln Arg Leu Arg Gln Ala Leu Gln Ala Ser Gln Ala Glu
 915 920 925
 Arg Asp Thr Ala Arg Leu Asp Lys Glu Leu Leu Ala Gln Arg Leu Gln
 930 935 940
 Gly Leu Glu Gln Glu Ala Glu Asn Lys Lys Arg Ser Gln Asp Asp Arg
 945 950 955 960
 Ala Arg Gln Leu Lys Gly Leu Glu Glu Lys Val Ser Arg Leu Glu Thr
 965 970 975
 Glu Leu Asp Glu Glu Lys Asn Thr Val Glu Leu Leu Thr Asp Arg Val
 980 985 990
 Asn Arg Gly Arg Asp Gln Val Asp Gln Leu Arg Thr Glu Leu Met Gln
 995 1000 1005
 Glu Arg Ser Ala Arg Gln Asp Leu Glu Cys Asp Lys Ile Ser Leu Glu
 1010 1015 1020
 Arg Gln Asn Lys Asp Leu Lys Thr Arg Leu Ala Ser Ser Glu Gly Phe
 1025 1030 1035 1040
 Gln Lys Pro Ser Ala Ser Leu Ser Gln Leu Glu Ser Gln Asn Gln Leu
 1045 1050 1055
 Leu Gln Glu Arg Leu Gln Ala Glu Glu Arg Glu Lys Thr Val Leu Gln
 1060 1065 1070
 Ser Thr Asn Arg Lys Leu Glu Arg Lys Val Lys Glu Leu Ser Ile Gln
 1075 1080 1085
 Ile Glu Asp Glu Arg Gln His Val Asn Asp Gln Lys Asp Gln Leu Ser
 1090 1095 1100
 Leu Arg Val Lys Ala Leu Lys Arg Gln Val Asp Glu Ala Glu Glu Glu
 1105 1110 1115 1120
 Ile Glu Arg Leu Asp Gly Leu Arg Lys Lys Ala Gln Arg Glu Val Glu
 1125 1130 1135
 Glu Gln His Glu Val Asn Glu Gln Leu Gln Ala Arg Ile Lys Ser Leu
 1140 1145 1150
 Glu Lys Asp Ser Trp Arg Lys Ala Ser Arg Ser Ala Ala Glu Ser Ala
 1155 1160 1165
 Leu Lys Asn Glu Gly Leu Ser Ser Asp Glu Glu Phe Asp Ser Val Tyr
 1170 1175 1180
 Asp Pro Ser Ser Ile Ala Ser Leu Leu Thr Glu Ser Asn Leu Gln Thr
 1185 1190 1195 1200
 Ser Ser Cys *
 1203

<210> 1927

<211> 555

<212> PRT

<213> Homo sapiens

<400> 1927

Met Ala Phe Thr Gln Leu Thr Phe Arg Asp Val Ala Ile Glu Phe Ser
 1 5 10 15
 Gln Asp Glu Trp Lys Cys Leu Asn Ser Thr Gln Arg Thr Leu Tyr Arg
 20 25 30
 Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Ser Leu Asp Leu Ser
 35 40 45
 Arg Asn Cys Val Ile Lys Glu Leu Ala Pro Gln Gln Glu Gly Asn Pro
 50 55 60
 Gly Glu Val Phe His Thr Val Thr Leu Glu Gln His Glu Lys His Asp
 65 70 75 80
 Ile Glu Glu Phe Cys Phe Arg Glu Ile Lys Lys Lys Ile His Asp Phe
 85 90 95
 Asp Cys Gln Trp Arg Asp Asp Glu Arg Asn Cys Asn Lys Val Thr Thr
 100 105 110
 Ala Pro Lys Glu Asn Leu Thr Cys Arg Arg Asp Gln Arg Asp Arg Arg
 115 120 125

Gly Ile Gly Asn Lys Ser Ile Lys His Gln Leu Gly Leu Ser Phe Leu
 130 135 140
 Pro His Pro His Glu Leu Gln Gln Phe Gln Ala Glu Gly Lys Ile Tyr
 145 150 155 160
 Glu Cys Asn His Val Glu Lys Ser Val Asn His Gly Ser Ser Val Ser
 165 170 175
 Pro Pro Gln Ile Leu Ser Ser Thr Val Lys Thr His Val Ser Asn Lys
 180 185 190
 Tyr Gly Thr Asp Phe Ile Cys Ser Ser Leu Leu Thr Gln Glu Gln Lys
 195 200 205
 Ser Cys Ile Arg Glu Lys Pro Tyr Arg Tyr Ile Glu Cys Asp Lys Ala
 210 215 220
 Leu Asn His Gly Ser His Met Thr Val Arg Gln Val Ser His Ser Gly
 225 230 235 240
 Glu Lys Gly Tyr Lys Cys Asp Leu Cys Gly Lys Val Phe Ser Gln Lys
 245 250 255
 Ser Asn Leu Ala Arg His Trp Arg Val His Thr Gly Glu Lys Pro Tyr
 260 265 270
 Lys Cys Asn Glu Cys Asp Arg Ser Phe Ser Arg Asn Ser Cys Leu Ala
 275 280 285
 Leu His Arg Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Tyr Glu
 290 295 300
 Cys Asp Lys Val Phe Ser Arg Asn Ser Cys Leu Ala Leu His Gln Lys
 305 310 315 320
 Thr His Ile Gly Glu Lys Pro Tyr Thr Cys Lys Glu Cys Gly Lys Ala
 325 330 335
 Phe Ser Val Arg Ser Thr Leu Thr Asn His Gln Val Ile His Ser Gly
 340 345 350
 Lys Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser Gln Thr
 355 360 365
 Ser Ser Leu Ala Thr His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr
 370 375 380
 Lys Cys Asn Glu Cys Gly Lys Val Phe Ser Gln Thr Ser Ser Leu Ala
 385 390 395 400
 Arg His Trp Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu
 405 410 415
 Cys Gly Lys Val Phe Ser Tyr Asn Ser His Leu Ala Ser His Arg Arg
 420 425 430
 Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala
 435 440 445
 Phe Ser Val His Ser Asn Leu Thr Thr His Gln Val Ile His Thr Gly
 450 455 460
 Glu Lys Pro Tyr Lys Cys Asn Gln Cys Gly Lys Gly Phe Ser Val His
 465 470 475 480
 Ser Ser Leu Thr Thr His Gln Val Ile His Thr Gly Glu Lys Pro Tyr
 485 490 495
 Lys Cys Asn Glu Cys Gly Lys Ser Phe Ser Val Arg Pro Asn Leu Thr
 500 505 510
 Arg His Gln Ile Ile His Thr Gly Lys Lys Pro Tyr Lys Cys Ser Asp
 515 520 525
 Cys Gly Lys Ser Phe Ser Val Arg Pro Asn Leu Phe Arg His Gln Ile
 530 535 540
 Ile His Thr Lys Glu Lys Pro Tyr Lys Arg Asn
 545 550 555

<210> 1928

<211> 214

<212> PRT

<213> Homo sapiens

<400> 1928

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Met Val Gln Ser Cys Ser Ala Tyr Gly Cys Lys Asn Arg Tyr Asp Lys
 1          5          10          15
Asp Lys Pro Val Ser Phe His Lys Phe Pro Leu Thr Arg Pro Ser Leu
          20          25          30
Cys Lys Glu Trp Glu Ala Ala Val Arg Arg Lys Asn Phe Lys Pro Thr
          35          40          45
Lys Tyr Ser Ser Ile Cys Ser Glu His Phe Thr Pro Asp Cys Phe Lys
          50          55          60
Arg Glu Cys Asn Asn Lys Leu Leu Lys Glu Asn Ala Val Pro Thr Ile
          65          70          75          80
Phe Leu Cys Thr Glu Pro His Asp Lys Lys Glu Asp Leu Leu Glu Pro
          85          90          95
Gln Glu Gln Leu Pro Pro Pro Pro Leu Pro Pro Pro Val Ser Gln Val
          100          105          110
Asp Ala Ala Ile Gly Leu Leu Met Pro Pro Leu Gln Thr Pro Val Asn
          115          120          125
Leu Ser Val Phe Cys Asp His Asn Tyr Thr Val Glu Asp Thr Met His
          130          135          140
Gln Arg Lys Arg Ile His Gln Leu Glu Gln Gln Val Glu Lys Leu Arg
          145          150          155          160
Lys Lys Leu Lys Thr Ala Gln Gln Arg Cys Arg Arg Gln Glu Arg Gln
          165          170          175
Leu Glu Lys Leu Lys Glu Val Val His Phe Gln Lys Glu Lys Asp Asp
          180          185          190
Val Ser Glu Arg Gly Tyr Val Ile Leu Pro Asn Asp Tyr Phe Glu Ile
          195          200          205
Val Glu Val Pro Ala *
          210          213

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<210> 1929
 <211> 155
 <212> PRT
 <213> Homo sapiens

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<400> 1929
Met Ile His Phe Ile Leu Leu Phe Ser Arg Gln Gly Lys Leu Arg Leu
 1          5          10          15
Gln Lys Trp Tyr Ile Thr Leu Pro Asp Lys Glu Arg Lys Lys Ile Thr
          20          25          30
Arg Glu Ile Val Gln Ile Ile Leu Ser Arg Gly His Arg Thr Ser Ser
          35          40          45
Phe Val Asp Trp Lys Glu Leu Lys Leu Val Tyr Lys Arg Tyr Ala Ser
          50          55          60
Leu Tyr Phe Cys Cys Ala Ile Glu Asn Gln Asp Asn Glu Leu Leu Thr
          65          70          75          80
Leu Glu Ile Val His Arg Tyr Val Glu Leu Leu Asp Lys Tyr Phe Gly
          85          90          95
Asn Val Cys Glu Leu Asp Ile Ile Phe Asn Phe Glu Lys Ala Tyr Phe
          100          105          110
Ile Leu Asp Glu Phe Ile Ile Gly Gly Glu Ile Gln Glu Thr Ser Lys
          115          120          125
Lys Ile Ala Val Lys Ala Ile Glu Asp Ser Asp Met Leu Gln Glu Val
          130          135          140
Ser Thr Val Ser Gln Thr Met Gly Glu Arg *
          145          150          154

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<210> 1930
 <211> 481
 <212> PRT

<213> Homo sapiens

<400> 1930

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Met Ala Gly Leu Arg Asn Glu Ser Glu Gln Glu Pro Leu Leu Gly Asp
 1          5          10          15
Thr Pro Gly Ser Arg Glu Trp Asp Ile Leu Glu Thr Glu Glu His Tyr
      20          25          30
Lys Ser Arg Trp Arg Ser Ile Arg Ile Leu Tyr Leu Thr Met Phe Leu
      35          40          45
Ser Ser Val Gly Phe Ser Val Val Met Met Ser Ile Trp Pro Tyr Leu
      50          55          60
Gln Lys Ile Asp Pro Thr Ala Asp Thr Ser Phe Leu Gly Trp Val Ile
      65          70          75          80
Ala Ser Tyr Ser Leu Gly Gln Met Val Ala Ser Pro Ile Phe Gly Leu
      85          90          95
Trp Ser Asn Tyr Arg Pro Arg Lys Glu Pro Leu Ile Val Ser Ile Leu
      100          105          110
Ile Ser Val Ala Ala Asn Cys Leu Tyr Ala Tyr Leu His Ile Pro Ala
      115          120          125
Ser His Asn Lys Tyr Tyr Met Leu Val Ala Arg Gly Leu Leu Gly Ile
      130          135          140
Gly Ala Val Phe Gln Thr Cys Phe Thr Phe Leu Gly Glu Lys Gly Val
      145          150          155          160
Thr Trp Asp Val Ile Lys Leu Gln Ile Asn Met Tyr Thr Thr Pro Val
      165          170          175
Leu Leu Ser Ala Phe Leu Gly Ile Leu Asn Ile Ile Leu Ile Leu Ala
      180          185          190
Ile Leu Arg Glu His Arg Val Asp Asp Ser Gly Arg Gln Cys Lys Ser
      195          200          205
Ile Asn Phe Glu Glu Ala Ser Thr Asp Glu Ala Gln Val Pro Gln Gly
      210          215          220
Asn Ile Asp Gln Val Ala Val Val Ala Ile Asn Val Leu Phe Phe Val
      225          230          235          240
Thr Leu Phe Ile Phe Ala Leu Phe Glu Thr Ile Ile Thr Pro Leu Thr
      245          250          255
Met Asp Met Tyr Ala Trp Thr Gln Glu Gln Ala Val Leu Tyr Asn Gly
      260          265          270
Ile Ile Leu Ala Ala Leu Gly Val Glu Ala Val Val Ile Phe Leu Gly
      275          280          285
Val Lys Leu Leu Ser Lys Lys Ile Gly Glu Arg Ala Ile Leu Leu Gly
      290          295          300
Gly Leu Ile Val Val Trp Val Gly Phe Phe Ile Leu Leu Pro Trp Gly
      305          310          315          320
Asn Gln Phe Pro Lys Ile Gln Trp Glu Asp Leu His Asn Asn Ser Ile
      325          330          335
Pro Asn Thr Thr Phe Gly Glu Ile Ile Ile Gly Leu Trp Lys Ser Pro
      340          345          350
Met Glu Asp Asp Asn Glu Arg Pro Thr Gly Cys Ser Ile Glu Gln Ala
      355          360          365
Trp Cys Leu Tyr Thr Pro Val Ile His Leu Ala Gln Phe Leu Thr Ser
      370          375          380
Ala Val Leu Ile Gly Leu Gly Tyr Pro Val Cys Asn Leu Met Ser Tyr
      385          390          395          400
Thr Leu Tyr Ser Lys Ile Leu Gly Pro Lys Pro Gln Gly Val Tyr Met
      405          410          415
Gly Trp Leu Thr Ala Ser Gly Ser Gly Ala Arg Ile Leu Gly Pro Met
      420          425          430
Phe Ile Ser Gln Val Tyr Ala His Trp Gly Pro Arg Trp Ala Phe Ser
      435          440          445
Leu Val Cys Gly Ile Ile Val Leu Thr Ile Thr Leu Leu Gly Val Val
      450          455          460
Tyr Lys Arg Leu Ile Ala Leu Ser Val Arg Tyr Gly Arg Ile Gln Glu
      465          470          475          480

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<210> 1931
 <211> 1177
 <212> PRT
 <213> Homo sapiens

<400> 1931
 Met Ala Glu Arg Lys Gly Thr Ala Lys Val Asp Phe Leu Lys Lys Ile
 1 5 10 15
 Glu Lys Glu Ile Gln Gln Lys Trp Asp Thr Glu Arg Val Phe Glu Val
 20 25 30
 Asn Ala Ser Asn Leu Glu Lys Gln Thr Ser Lys Gly Lys Tyr Phe Val
 35 40 45
 Thr Phe Pro Tyr Pro Tyr Met Asn Gly Arg Leu His Leu Gly His Thr
 50 55 60
 Phe Ser Leu Ser Lys Cys Glu Phe Ala Val Gly Tyr Gln Arg Leu Lys
 65 70 75 80
 Gly Lys Cys Cys Leu Phe Pro Phe Gly Leu His Cys Thr Gly Met Pro
 85 90 95
 Ile Lys Ala Cys Ala Asp Lys Leu Lys Arg Glu Ile Glu Leu Tyr Gly
 100 105 110
 Cys Pro Pro Asp Phe Pro Asp Glu Glu Glu Glu Glu Glu Thr Ser
 115 120 125
 Val Lys Thr Glu Asp Ile Ile Lys Asp Lys Ala Lys Gly Lys Lys
 130 135 140
 Ser Lys Ala Ala Ala Lys Ala Gly Ser Ser Lys Tyr Gln Trp Gly Ile
 145 150 155 160
 Met Lys Ser Leu Gly Leu Ser Asp Glu Glu Ile Val Lys Phe Ser Glu
 165 170 175
 Ala Glu His Trp Leu Asp Tyr Phe Thr Pro Leu Ala Ile Gln Asp Leu
 180 185 190
 Lys Arg Met Gly Leu Lys Val Asp Trp Arg Arg Ser Phe Ile Thr Thr
 195 200 205
 Asp Val Asn Pro Tyr Tyr Asp Ser Phe Val Arg Trp Gln Phe Leu Thr
 210 215 220
 Leu Arg Glu Arg Asn Lys Ile Lys Phe Gly Lys Arg Tyr Thr Ile Tyr
 225 230 235 240
 Ser Pro Lys Asp Gly Gln Pro Cys Met Asp His Asp Arg Gln Thr Gly
 245 250 255
 Glu Gly Val Gly Pro Gln Glu Tyr Thr Leu Leu Lys Leu Lys Val Leu
 260 265 270
 Glu Pro Tyr Pro Ser Lys Leu Ser Gly Leu Lys Gly Lys Asn Ile Phe
 275 280 285
 Leu Val Ala Ala Thr Leu Arg Pro Glu Thr Met Phe Gly Gln Thr Asn
 290 295 300
 Cys Trp Val Arg Pro Asp Met Lys Tyr Ile Gly Phe Glu Thr Val Asn
 305 310 315 320
 Gly Asp Ile Phe Ile Cys Thr Gln Lys Ala Ala Arg Asn Met Ser Tyr
 325 330 335
 Gln Gly Phe Thr Lys Asp Asn Gly Val Val Pro Val Val Lys Glu Leu
 340 345 350
 Met Gly Glu Glu Ile Leu Gly Ala Ser Leu Ser Ala Pro Leu Thr Ser
 355 360 365
 Tyr Lys Val Ile Tyr Val Leu Pro Met Leu Thr Ile Lys Glu Asp Lys
 370 375 380
 Gly Thr Gly Val Val Thr Ser Val Pro Ser Asp Ser Pro Asp Asp Ile
 385 390 395 400
 Ala Ala Leu Arg Asp Leu Lys Lys Lys Glu Ala Leu Arg Ala Lys Tyr
 405 410 415

Gly Ile Arg Asp Asp Met Val Leu Pro Phe Glu Pro Val Pro Val Ile
 420 425 430
 Glu Ile Pro Gly Phe Gly Asn Leu Ser Ala Val Thr Ile Cys Asp Glu
 435 440 445
 Leu Lys Ile Gln Ser Gln Asn Asp Arg Glu Lys Leu Ala Glu Ala Lys
 450 455 460
 Glu Lys Ile Tyr Leu Lys Gly Phe Tyr Glu Gly Ile Met Leu Val Asp
 465 470 475 480
 Gly Phe Lys Gly Gln Lys Val Gln Asp Val Lys Lys Thr Ile Gln Lys
 485 490 495
 Lys Met Ile Asp Ala Gly Asp Ala Leu Ile Tyr Met Glu Pro Glu Lys
 500 505 510
 Gln Val Met Ser Arg Ser Ser Asp Glu Cys Val Val Ala Leu Cys Asp
 515 520 525
 Gln Trp Tyr Leu Asp Tyr Gly Glu Glu Asn Trp Lys Lys Gln Thr Ser
 530 535 540
 Gln Cys Leu Lys Asn Leu Glu Thr Phe Cys Glu Glu Thr Arg Arg Asn
 545 550 555 560
 Phe Glu Ala Thr Leu Gly Trp Leu Gln Glu His Ala Cys Ser Arg Thr
 565 570 575
 Tyr Gly Leu Gly Thr His Leu Pro Trp Asp Glu Gln Trp Leu Ile Glu
 580 585 590
 Ser Leu Ser Asp Ser Thr Ile Tyr Met Ala Phe Tyr Thr Val Ala His
 595 600 605
 Leu Leu Gln Gly Gly Asn Leu His Gly Gln Ala Glu Ser Pro Leu Gly
 610 615 620
 Ile Arg Pro Gln Gln Met Thr Lys Glu Val Trp Asp Tyr Val Phe Phe
 625 630 635 640
 Lys Glu Ala Pro Phe Pro Lys Thr Gln Ile Ala Lys Glu Lys Leu Asp
 645 650 655
 Gln Leu Lys Gln Glu Phe Glu Phe Trp Tyr Pro Val Asp Leu Arg Val
 660 665 670
 Ser Gly Lys Asp Leu Val Pro Asn His Leu Ser Tyr Tyr Leu Tyr Asn
 675 680 685
 His Val Ala Met Trp Pro Glu Gln Ser Asp Lys Trp Pro Thr Ala Val
 690 695 700
 Arg Ala Asn Gly His Leu Leu Leu Asn Ser Glu Lys Met Ser Lys Ser
 705 710 715 720
 Thr Gly Asn Phe Leu Thr Leu Thr Gln Ala Ile Asp Lys Phe Ser Ala
 725 730 735
 Asp Gly Met Arg Leu Ala Leu Ala Asp Ala Gly Asp Thr Val Glu Asp
 740 745 750
 Ala Asn Phe Val Glu Ala Met Ala Asp Ala Gly Ile Leu Arg Leu Tyr
 755 760 765
 Thr Trp Val Glu Trp Val Lys Glu Met Val Ala Asn Trp Asp Ser Leu
 770 775 780
 Arg Ser Gly Pro Ala Ser Thr Phe Asn Asp Arg Val Phe Ala Ser Glu
 785 790 795 800
 Leu Asn Ala Gly Ile Ile Lys Thr Asp Gln Asn Tyr Glu Lys Met Met
 805 810 815
 Phe Lys Glu Ala Leu Lys Thr Gly Phe Phe Glu Phe Gln Ala Ala Lys
 820 825 830
 Asp Lys Tyr Arg Glu Leu Ala Val Glu Gly Met His Arg Glu Leu Val
 835 840 845
 Phe Arg Phe Ile Glu Val Gln Thr Leu Leu Leu Ala Pro Phe Cys Pro
 850 855 860
 His Leu Cys Glu His Ile Trp Thr Leu Leu Gly Lys Pro Asp Ser Ile
 865 870 875 880
 Met Asn Ala Ser Trp Pro Val Ala Gly Pro Val Asn Glu Val Leu Ile
 885 890 895
 His Ser Ser Gln Tyr Leu Met Glu Val Thr His Asp Leu Arg Leu Arg
 900 905 910
 Leu Lys Asn Tyr Met Met Pro Ala Lys Gly Lys Lys Thr Asp Lys Gln
 915 920 925

Pro Leu Gln Lys Pro Ser His Cys Thr Ile Tyr Val Ala Lys Asn Tyr
 930 935 940
 Pro Pro Trp Gln His Thr Thr Leu Ser Val Leu Arg Lys His Phe Glu
 945 950 955 960
 Ala Asn Asn Gly Lys Leu Pro Asp Asn Lys Val Ile Ala Ser Glu Leu
 965 970 975
 Gly Ser Met Pro Glu Leu Lys Lys Tyr Met Lys Lys Val Met Pro Phe
 980 985 990
 Val Ala Met Ile Lys Glu Asn Leu Glu Lys Met Gly Pro Arg Ile Leu
 995 1000 1005
 Asp Leu Gln Leu Glu Phe Asp Glu Lys Ala Val Leu Met Glu Asn Ile
 1010 1015 1020
 Val Tyr Leu Thr Asn Ser Leu Glu Leu Glu His Ile Glu Val Lys Phe
 1025 1030 1035 1040
 Ala Ser Glu Ala Glu Asp Lys Ile Arg Glu Asp Cys Cys Pro Gly Lys
 1045 1050 1055
 Pro Leu Asn Val Phe Arg Ile Glu Pro Gly Val Ser Val Ser Leu Val
 1060 1065 1070
 Asn Pro Gln Pro Ser Asn Gly His Phe Ser Thr Lys Ile Glu Ile Lys
 1075 1080 1085
 Gln Gly Asp Asn Cys Asp Ser Ile Ile Arg Arg Leu Met Lys Met Asn
 1090 1095 1100
 Arg Gly Ile Lys Asp Leu Ser Lys Val Lys Leu Met Arg Phe Asp Asp
 1105 1110 1115 1120
 Pro Leu Leu Gly Pro Arg Arg Val Pro Val Leu Gly Lys Glu Tyr Thr
 1125 1130 1135
 Glu Lys Thr Pro Ile Ser Glu His Ala Val Phe Asn Val Asp Leu Met
 1140 1145 1150
 Ser Lys Lys Ile His Leu Thr Glu Asn Gly Ile Arg Val Asp Ile Gly
 1155 1160 1165
 Asp Thr Ile Ile Tyr Leu Val His *
 1170 1175 1176

<210> 1932
 <211> 1707
 <212> PRT
 <213> Homo sapiens

<400> 1932
 Met Asp Asp Asp Ser Leu Asp Glu Leu Val Ala Arg Ser Pro Gly Pro
 1 5 10 15
 Asp Gly His Pro Gln Val Gly Pro Ala Asp Pro Ala Gly Asp Phe Glu
 20 25 30
 Glu Ser Ser Val Gly Ser Ser Gly Asp Ser Gly Asp Asp Ser Asp Ser
 35 40 45
 Glu His Gly Asp Gly Thr Asp Gly Glu Asp Glu Gly Ala Ser Glu Glu
 50 55 60
 Glu Asp Leu Glu Asp Arg Ser Gly Ser Glu Asp Ser Glu Asp Asp Gly
 65 70 75 80
 Glu Thr Leu Leu Glu Val Ala Gly Thr Gln Gly Lys Leu Glu Ala Ala
 85 90 95
 Gly Ser Phe Asn Ser Asp Asp Asp Ala Glu Ser Cys Pro Ile Cys Leu
 100 105 110
 Asn Ala Phe Arg Asp Gln Ala Val Gly Thr Pro Glu Asn Cys Ala His
 115 120 125
 Tyr Phe Cys Leu Asp Cys Ile Val Glu Trp Ser Lys Asn Ala Asn Ser
 130 135 140
 Cys Pro Val Asp Arg Thr Leu Phe Lys Cys Ile Cys Ile Arg Ala Gln
 145 150 155 160
 Phe Gly Gly Lys Ile Leu Lys Lys Ile Pro Val Glu Asn Thr Lys Ala
 165 170 175

Ser	Glu	Glu	Glu	Glu	Asp	Pro	Thr	Phe	Cys	Glu	Val	Cys	Gly	Arg	Ser	180	185	190
Asp	Arg	Glu	Asp	Arg	Leu	Leu	Leu	Cys	Asp	Gly	Cys	Asp	Ala	Gly	Tyr	195	200	205
His	Met	Glu	Cys	Leu	Asp	Pro	Pro	Leu	Gln	Glu	Val	Pro	Val	Asp	Glu	210	215	220
Trp	Phe	Cys	Pro	Glu	Cys	Ala	Ala	Pro	Gly	Val	Val	Leu	Ala	Ala	Asp	225	230	235
Ala	Gly	Pro	Val	Ser	Glu	Glu	Glu	Val	Ser	Leu	Leu	Leu	Ala	Asp	Val	245	250	255
Val	Pro	Thr	Thr	Ser	Arg	Leu	Arg	Pro	Arg	Ala	Gly	Arg	Thr	Arg	Ala	260	265	270
Ile	Ala	Arg	Thr	Arg	Gln	Ser	Glu	Arg	Val	Arg	Ala	Thr	Val	Asn	Arg	275	280	285
Asn	Arg	Ile	Ser	Thr	Ala	Arg	Arg	Val	Gln	His	Thr	Pro	Gly	Arg	Leu	290	295	300
Gly	Ser	Ser	Leu	Leu	Asp	Glu	Ala	Ile	Glu	Ala	Val	Ala	Thr	Gly	Leu	305	310	315
Ser	Thr	Ala	Val	Tyr	Gln	Arg	Pro	Leu	Thr	Pro	Arg	Thr	Pro	Ala	Arg	325	330	335
Arg	Lys	Arg	Lys	Thr	Arg	Arg	Arg	Lys	Lys	Val	Pro	Gly	Arg	Lys	Lys	340	345	350
Thr	Pro	Ser	Gly	Pro	Ser	Ala	Lys	Ser	Lys	Ser	Ser	Ala	Thr	Arg	Ser	355	360	365
Lys	Lys	Arg	Gln	His	Arg	Val	Lys	Lys	Arg	Arg	Gly	Lys	Lys	Val	Lys	370	375	380
Ser	Glu	Ala	Thr	Thr	Arg	Ser	Arg	Ile	Ala	Arg	Thr	Leu	Gly	Leu	Arg	385	390	395
Arg	Pro	Val	His	Ser	Ser	Cys	Ile	Pro	Ser	Val	Leu	Lys	Pro	Val	Glu	405	410	415
Pro	Ser	Leu	Gly	Leu	Leu	Arg	Ala	Asp	Ile	Gly	Ala	Ala	Ser	Leu	Ser	420	425	430
Leu	Phe	Gly	Asp	Pro	Tyr	Glu	Leu	Asp	Pro	Phe	Asp	Ser	Ser	Glu	Glu	435	440	445
Leu	Ser	Ala	Asn	Pro	Leu	Ser	Pro	Leu	Ser	Ala	Lys	Arg	Arg	Ala	Leu	450	455	460
Ser	Arg	Ser	Ala	Leu	Gln	Ser	His	Gln	Pro	Val	Ala	Arg	Pro	Val	Ser	465	470	475
Val	Gly	Leu	Ser	Arg	Arg	Arg	Leu	Pro	Ala	Ala	Val	Pro	Glu	Pro	Asp	485	490	495
Leu	Glu	Glu	Glu	Pro	Val	Pro	Asp	Leu	Leu	Gly	Ser	Ile	Leu	Ser	Gly	500	505	510
Gln	Ser	Leu	Leu	Met	Leu	Gly	Ser	Ser	Asp	Val	Ile	Ile	His	Arg	Asp	515	520	525
Gly	Ser	Leu	Ser	Ala	Lys	Arg	Ala	Ala	Pro	Val	Ser	Phe	Gln	Arg	Asn	530	535	540
Ser	Gly	Ser	Leu	Ser	Arg	Gly	Glu	Glu	Gly	Phe	Lys	Gly	Cys	Leu	Gln	545	550	555
Pro	Arg	Ala	Leu	Pro	Ser	Gly	Ser	Pro	Ala	Gln	Gly	Pro	Ser	Gly	Asn	565	570	575
Arg	Pro	Gln	Ser	Thr	Gly	Leu	Ser	Cys	Gln	Gly	Arg	Ser	Arg	Thr	Pro	580	585	590
Ala	Arg	Thr	Ala	Gly	Ala	Pro	Val	Arg	Leu	Asp	Leu	Pro	Ala	Ala	Pro	595	600	605
Gly	Ala	Val	Gln	Ala	Arg	Asn	Leu	Ser	Asn	Gly	Ser	Val	Pro	Gly	Phe	610	615	620
Arg	Gln	Ser	His	Ser	Pro	Trp	Phe	Asn	Gly	Thr	Asn	Lys	His	Thr	Leu	625	630	635
Pro	Leu	Ala	Ser	Ala	Ala	Ser	Lys	Ile	Ser	Ser	Arg	Asp	Ser	Lys	Pro	645	650	655
Pro	Cys	Arg	Ser	Val	Val	Pro	Gly	Pro	Pro	Leu	Lys	Pro	Ala	Pro	Arg	660	665	670
Arg	Thr	Asp	Ile	Ser	Glu	Leu	Pro	Arg	Ile	Pro	Lys	Ile	Arg	Arg	Asp	675	680	685

Asp Gly Gly Gly Arg Arg Asp Ala Ala Pro Ala His Gly Gln Ser Ile
 690 695 700
 Glu Ile Pro Ser Ala Cys Ile Ser Arg Leu Thr Gly Arg Glu Gly Thr
 705 710 715 720
 Gly Gln Pro Gly Arg Gly Thr Arg Ala Glu Ser Glu Ala Ser Ser Arg
 725 730 735
 Val Pro Arg Glu Pro Gly Val His Thr Gly Ser Ser Arg Pro Pro Ala
 740 745 750
 Pro Ser Ser His Gly Ser Leu Ala Pro Leu Gly Pro Ser Arg Gly Lys
 755 760 765
 Gly Val Gly Ser Thr Phe Glu Ser Phe Arg Ile Asn Ile Pro Gly Asn
 770 775 780
 Met Ala His Ser Ser Gln Leu Ser Ser Pro Gly Phe Cys Asn Thr Phe
 785 790 795 800
 Arg Pro Val Asp Asp Lys Glu Gln Arg Lys Glu Asn Pro Ser Pro Leu
 805 810 815
 Phe Ser Ile Lys Lys Thr Lys Gln Leu Arg Ser Glu Val Tyr Asp Pro
 820 825 830
 Ser Asp Pro Thr Gly Ser Asp Ser Ser Ala Pro Gly Ser Ser Pro Glu
 835 840 845
 Arg Ser Gly Pro Gly Leu Leu Pro Ser Glu Ile Thr Arg Thr Ile Ser
 850 855 860
 Ile Asn Ser Pro Lys Ala Gln Thr Val Gln Ala Val Arg Cys Val Thr
 865 870 875 880
 Ser Tyr Thr Val Glu Ser Ile Phe Gly Thr Glu Pro Glu Pro Pro Leu
 885 890 895
 Gly Pro Ser Ser Ala Met Ser Lys Leu Arg Gly Ala Val Ala Ala Glu
 900 905 910
 Gly Ala Ser Asp Thr Glu Arg Glu Glu Pro Thr Glu Ser Gln Gly Leu
 915 920 925
 Ala Ala Arg Leu Arg Arg Pro Ser Pro Pro Glu Pro Trp Asp Glu Glu
 930 935 940
 Asp Gly Ala Ser Cys Ser Thr Phe Phe Gly Ser Glu Glu Arg Thr Val
 945 950 955 960
 Thr Cys Val Thr Val Glu Pro Glu Ala Pro Pro Ser Pro Asp Val
 965 970 975
 Leu Gln Ala Ala Thr His Arg Val Val Glu Leu Arg Pro Pro Ser Arg
 980 985 990
 Ser Arg Ser Thr Ser Ser Ser Arg Ser Arg Lys Lys Ala Lys Arg Lys
 995 1000 1005
 Arg Val Ser Arg Glu His Gly Arg Thr Arg Ser Gly Thr Arg Ser Glu
 1010 1015 1020
 Ser Arg Asp Arg Ser Ser Arg Ser Ala Ser Pro Ser Val Gly Glu Glu
 1025 1030 1035 1040
 Arg Pro Arg Arg Gln Arg Ser Lys Ala Lys Ser Arg Arg Ser Ser Ser
 1045 1050 1055
 Asp Arg Ser Ser Arg Glu Arg Ala Lys Arg Lys Lys Ala Lys Asp
 1060 1065 1070
 Lys Ser Arg Glu His Arg Arg Gly Pro Trp Gly His Ser Arg Arg Thr
 1075 1080 1085
 Ser Arg Ser Arg Ser Gly Ser Pro Gly Ser Ser Ser Tyr Glu His Tyr
 1090 1095 1100
 Glu Ser Arg Lys Lys Lys Lys Arg Arg Ser Ala Ser Arg Pro Arg Gly
 1105 1110 1115 1120
 Arg Glu Cys Ser Pro Thr Ser Ser Leu Glu Arg Leu Cys Arg His Lys
 1125 1130 1135
 His Gln Arg Glu Arg Ser His Glu Arg Pro Asp Arg Lys Glu Ser Val
 1140 1145 1150
 Ala Trp Pro Arg Asp Arg Arg Lys Arg Arg Ser Arg Ser Pro Ser Ser
 1155 1160 1165
 Glu His Arg Ala Arg Glu His Arg Arg Pro Arg Ser Arg Glu Lys Trp
 1170 1175 1180
 Pro Gln Thr Arg Ser His Ser Pro Glu Arg Lys Gly Ala Val Arg Glu
 1185 1190 1195 1200

Ala Ser Pro Ala Pro Leu Ala Gln Gly Glu Pro Gly Arg Glu Asp Leu
 1205 1210 1215
 Pro Thr Arg Leu Pro Ala Leu Gly Glu Ala His Val Ser Pro Glu Val
 1220 1225 1230
 Ala Thr Ala Asp Lys Ala Pro Leu Gln Ala Pro Pro Val Leu Glu Val
 1235 1240 1245
 Ala Ala Glu Cys Glu Pro Asp Asp Leu Asp Leu Asp Tyr Gly Asp Ser
 1250 1255 1260
 Val Glu Ala Gly His Val Phe Asp Asp Phe Ser Ser Asp Ala Val Phe
 1265 1270 1275 1280
 Ile Gln Leu Asp Asp Met Ser Ser Pro Pro Ser Pro Glu Ser Thr Asp
 1285 1290 1295
 Ser Ser Pro Glu Arg Asp Phe Pro Leu Lys Pro Ala Leu Pro Pro Ala
 1300 1305 1310
 Ser Leu Ala Val Ala Ala Ile Gln Arg Glu Val Ser Leu Met His Asp
 1315 1320 1325
 Glu Asp Pro Ser Gln Pro Pro Pro Leu Pro Glu Gly Thr Gln Glu Pro
 1330 1335 1340
 His Leu Leu Arg Pro Asp Ala Ala Glu Lys Ala Glu Ala Pro Ser Ser
 1345 1350 1355 1360
 Pro Asp Val Ala Pro Ala Gly Lys Glu Asp Ser Pro Ser Ala Ser Gly
 1365 1370 1375
 Arg Val Gln Glu Ala Ala Arg Pro Glu Glu Val Val Ser Gln Thr Pro
 1380 1385 1390
 Leu Leu Arg Ser Arg Ala Leu Val Lys Arg Val Thr Trp Asn Leu Gln
 1395 1400 1405
 Glu Ser Glu Ser Ser Ala Pro Ala Glu Asp Arg Ala Pro Arg Gly Thr
 1410 1415 1420
 Thr Ser Gln Ala Thr Glu Ala Pro Arg Arg Ser Leu Gly His Gly Gly
 1425 1430 1435 1440
 Cys Gly Pro His Arg Gly Gln Ala Gly Val Leu Arg Ala Ala Leu Ser
 1445 1450 1455
 Gln Ser Arg Ala Ser Gly Thr Arg Val Pro Arg His Arg Pro Leu Ser
 1460 1465 1470
 Gly Leu Gln Pro Arg Pro Ala Ala Cys Pro Gly Pro Ala Leu Lys His
 1475 1480 1485
 Pro Thr Leu Arg Thr Gly Gln Pro Ala His Gly Pro Val His Pro Ser
 1490 1495 1500
 Gly Glu Pro Ala Ala Ser Gly Leu Trp Gly Ser Thr Asp Pro Gly Pro
 1505 1510 1515 1520
 Ser Ala Arg Cys Pro Asp Pro Ser Leu Arg Ala Ser Gln Ser Ser His
 1525 1530 1535
 Cys Ser Gln Gln Leu Gly Gly Glu Asp Pro Gly Pro Gln Ala Ser Cys
 1540 1545 1550
 Gly Glu Asn Gln Glu Gly Gly Val His Glu Glu Ala Ala His Ala Gly
 1555 1560 1565
 Ala Cys Cys Gly Gly Gly Glu Ala Gly His Gln Ala Leu Leu Pro Glu
 1570 1575 1580
 Glu Gly Gly Asp Gln Gly Gly Val Gln Gly His Pro Ala Gln Gly Arg
 1585 1590 1595 1600
 Ala Glu Asp Leu Pro Gln Gln Glu Trp Arg Asp Gln Pro Arg Glu Gly
 1605 1610 1615
 Gly Gln Pro Gly Glu Gly Val Arg Gly Gln Val Gln Ala His Ala Gln
 1620 1625 1630
 Ala Gln Glu Thr Arg Gly Arg Gly Gly Ala Ala His Ala Gly Gly Arg
 1635 1640 1645
 Gly Leu Arg Pro Gly Asn His Gly Leu Cys Pro Gly Ser Cys Arg Glu
 1650 1655 1660
 Trp Arg Glu Ser Gly Pro Cys Pro Gly Ser Cys Arg Glu Trp Arg Glu
 1665 1670 1675 1680
 Ser Gly Pro Cys Pro Gly Ser Cys Arg Glu Trp Arg Glu Met Gly Gly
 1685 1690 1695
 Ile Thr Met Pro Ala Val Gly Phe Leu Arg *
 1700 1705 1706

<210> 1933
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 1933
 Met Glu Ala Thr Arg Arg Arg Gln His Leu Gly Ala Thr Gly Gly Pro
 1 5 10 15
 Gly Ala Gln Leu Gly Ala Ser Phe Leu Gln Ala Arg His Gly Ser Val
 20 25 30
 Ser Ala Asp Glu Ala Ala Arg Thr Ala Pro Phe His Leu Asp Leu Trp
 35 40 45
 Phe Tyr Phe Thr Leu Gln Asn Trp Val Leu Asp Phe Gly Arg Pro Ile
 50 55 60
 Ala Met Leu Val Phe Pro Leu Glu Trp Phe Pro Leu Asn Lys Pro Ser
 65 70 75 80
 Val Gly Asp Tyr Phe His Met Ala Tyr Asn Val Ile Thr Pro Phe Leu
 85 90 95
 Leu Leu Lys Leu Ile Glu Arg Ser Pro Arg Thr Leu Pro Arg Ser Ile
 100 105 110
 Thr Tyr Val Ser Ile Ile Ile Phe Ile Met Gly Ala Ser Ile His Leu
 115 120 125
 Val Gly Asp Ser Val Asn His Arg Leu Leu Phe Ser Gly Tyr Gln His
 130 135 140
 His Leu Ser Val Arg Glu Asn Pro Ile Ile Lys Asn Leu Lys Pro Glu
 145 150 155 160
 Thr Leu Ile Asp Ser Phe Glu Leu Leu Tyr Tyr Tyr Asp Glu Tyr Leu
 165 170 175
 Gly His Cys Met Trp Tyr Ile Pro Phe Phe Leu Ile Leu Phe Met Tyr
 180 185 190
 Phe Ser Gly Cys Phe Thr Ala Ser Lys Ala Glu Ser Leu Ile Pro Gly
 195 200 205
 Pro Ala Leu Leu Leu Val Ala Pro Ser Gly Leu Tyr Tyr Trp Tyr Leu
 210 215 220
 Val Thr Glu Gly Gln Ile Phe Ile Leu Phe Ile Phe Thr Phe Phe Ala
 225 230 235 240
 Met Leu Ala Leu Val Leu His Gln Lys Arg Lys Arg Leu Phe Leu Asp
 245 250 255
 Ser Asn Gly Leu Phe Leu Phe Ser Ser Phe Ala Leu Thr Leu Leu Leu
 260 265 270
 Val Ala Leu Trp Val Ala Trp Leu Trp Asn Asp Pro Val Leu Arg Lys
 275 280 285
 Lys Tyr Pro Gly Val Ile Tyr Val Pro Glu Pro Trp Ala Phe Tyr Thr
 290 295 300
 Leu His Val Ser Ser Arg His *
 305 310 311

<210> 1934
 <211> 352
 <212> PRT
 <213> Homo sapiens

<400> 1934
 Met Leu Glu Thr Leu Arg Glu Arg Leu Leu Ser Val Gln Gln Asp Phe
 1 5 10 15
 Thr Ser Gly Leu Lys Thr Leu Ser Asp Lys Ser Arg Glu Ala Lys Val
 20 25 30

Lys Ser Lys Pro Arg Thr Val Pro Phe Leu Pro Lys Tyr Ser Ala Gly
 35 40 45
 Leu Glu Leu Leu Ser Arg Tyr Glu Asp Thr Trp Ala Ala Leu His Arg
 50 55 60
 Arg Ala Lys Asp Cys Ala Ser Ala Gly Glu Leu Val Asp Ser Glu Val
 65 70 75 80
 Val Met Leu Ser Ala His Trp Glu Lys Lys Lys Thr Ser Leu Val Glu
 85 90 95
 Leu Gln Glu Gln Leu Gln Gln Leu Pro Ala Leu Ile Ala Asp Leu Glu
 100 105 110
 Ser Met Thr Ala Asn Leu Thr His Leu Glu Ala Ser Phe Glu Glu Val
 115 120 125
 Glu Asn Asn Leu Leu His Leu Glu Asp Leu Cys Gly Gln Cys Glu Leu
 130 135 140
 Glu Arg Cys Lys His Met Gln Ser Gln Gln Leu Glu Asn Tyr Lys Lys
 145 150 155 160
 Asn Lys Arg Lys Glu Leu Glu Thr Phe Lys Ala Glu Leu Asp Ala Glu
 165 170 175
 His Ala Gln Lys Val Leu Glu Met Glu His Thr Gln Gln Met Lys Leu
 180 185 190
 Lys Glu Arg Gln Lys Phe Phe Glu Glu Ala Phe Gln Gln Asp Met Glu
 195 200 205
 Gln Tyr Leu Ser Thr Gly Tyr Leu Gln Ile Ala Glu Arg Arg Glu Pro
 210 215 220
 Ile Gly Ser Met Ser Ser Met Glu Val Asn Val Asp Met Leu Glu Gln
 225 230 235 240
 Met Asp Leu Met Asp Ile Ser Asp Gln Glu Ala Leu Asp Val Phe Leu
 245 250 255
 Asn Ser Gly Gly Glu Glu Asn Thr Val Leu Ser Pro Ala Leu Gly Pro
 260 265 270
 Glu Ser Ser Thr Cys Gln Asn Glu Ile Thr Leu Gln Val Pro Asn Pro
 275 280 285
 Ser Glu Leu Arg Ala Lys Pro Pro Ser Ser Ser Ser Thr Cys Thr Asp
 290 295 300
 Ser Ala Thr Arg Asp Ile Ser Glu Gly Gly Glu Ser Pro Val Val Gln
 305 310 315 320
 Ser Asp Glu Glu Glu Val Gln Val Asp Thr Ala Leu Ala Thr Ser His
 325 330 335
 Thr Asp Arg Glu Ala Thr Pro Asp Gly Gly Glu Asp Ser Asp Ser *
 340 345 350 351

<210> 1935

<211> 583

<212> PRT

<213> Homo sapiens

<400> 1935

Met Glu Ser Val Lys Gln Arg Ile Leu Ala Pro Gly Lys Glu Gly Leu
 1 5 10 15
 Lys Asn Phe Ala Gly Lys Ser Leu Gly Gln Ile Tyr Arg Val Leu Glu
 20 25 30
 Lys Lys Gln Asp Thr Gly Glu Thr Ile Glu Leu Thr Glu Asp Gly Lys
 35 40 45
 Pro Leu Glu Val Pro Glu Arg Lys Ala Pro Leu Cys Asp Cys Thr Cys
 50 55 60
 Phe Gly Leu Pro Arg Arg Tyr Ile Ile Ala Ile Met Ser Gly Leu Gly
 65 70 75 80
 Phe Cys Ile Ser Phe Gly Ile Arg Cys Asn Leu Gly Val Ala Ile Val
 85 90 95
 Asp Met Val Asn Ser Thr Ile His Arg Gly Gly Lys Val Ile Lys
 100 105 110

Glu Lys Ala Lys Phe Asn Trp Asp Pro Glu Thr Val Gly Met Ile His
 115 120 125
 Gly Ser Phe Phe Trp Gly Tyr Ile Ile Thr Gln Ile Pro Gly Gly Tyr
 130 135 140
 Ile Ala Ser Arg Leu Ala Ala Asp Arg Val Phe Gly Ala Ala Ile Leu
 145 150 155 160
 Leu Thr Ser Thr Leu Asn Met Leu Ile Pro Ser Ala Ala Arg Val His
 165 170 175
 Tyr Gly Cys Val Ile Phe Val Arg Ile Leu Gln Gly Leu Val Glu Gly
 180 185 190
 Val Thr Tyr Pro Ala Cys His Gly Ile Trp Ser Lys Trp Ala Pro Pro
 195 200 205
 Leu Glu Arg Ser Arg Leu Ala Thr Thr Ser Phe Cys Gly Ser Tyr Ala
 210 215 220
 Gly Ala Val Ile Ala Met Pro Leu Ala Gly Ile Leu Val Gln Tyr Thr
 225 230 235 240
 Gly Trp Ser Ser Val Phe Tyr Val Tyr Gly Ser Phe Gly Met Val Trp
 245 250 255
 Tyr Met Phe Trp Leu Leu Val Ser Tyr Glu Ser Pro Ala Lys His Pro
 260 265 270
 Thr Ile Thr Asp Glu Glu Arg Arg Tyr Thr Glu Glu Ser Ile Gly Glu
 275 280 285
 Ser Ala Asn Leu Leu Gly Ala Met Glu Lys Phe Lys Thr Pro Trp Arg
 290 295 300
 Lys Phe Phe Thr Ser Met Pro Val Tyr Ala Ile Ile Val Ala Asn Phe
 305 310 315 320
 Cys Arg Ser Trp Thr Phe Tyr Leu Leu Ile Ser Gln Pro Ala Tyr
 325 330 335
 Phe Glu Glu Val Phe Gly Phe Glu Ile Ser Lys Val Gly Met Leu Ser
 340 345 350
 Ala Val Pro His Leu Val Met Thr Ile Ile Val Pro Ile Gly Gly Gln
 355 360 365
 Ile Ala Asp Phe Leu Arg Ser Lys Gln Ile Leu Ser Thr Thr Thr Val
 370 375 380
 Arg Lys Ile Met Asn Cys Gly Gly Phe Gly Met Glu Ala Thr Leu Leu
 385 390 395 400
 Leu Val Val Gly Tyr Ser His Thr Arg Gly Val Ala Ile Ser Phe Leu
 405 410 415
 Val Leu Ala Val Gly Phe Ser Gly Phe Ala Ile Ser Gly Phe Asn Val
 420 425 430
 Asn His Leu Asp Ile Ala Pro Arg Tyr Ala Ser Ile Leu Met Gly Ile
 435 440 445
 Ser Asn Gly Val Gly Thr Leu Ser Gly Met Val Cys Pro Ile Ile Val
 450 455 460
 Gly Ala Met Thr Lys Asn Lys Ser Arg Glu Glu Trp Gln Tyr Val Phe
 465 470 475 480
 Leu Ile Ala Ala Leu Val His Tyr Gly Gly Val Ile Phe Tyr Ala Ile
 485 490 495
 Phe Ala Ser Gly Glu Lys Gln Pro Trp Ala Asp Pro Glu Glu Thr Ser
 500 505 510
 Glu Glu Lys Cys Gly Phe Ile His Glu Asp Glu Leu Asp Glu Glu Thr
 515 520 525
 Gly Asp Ile Thr Gln Asn Tyr Ile Asn Tyr Gly Thr Thr Lys Ser Tyr
 530 535 540
 Gly Ala Thr Thr Gln Ala Asn Gly Gly Trp Pro Ser Gly Trp Glu Lys
 545 550 555 560
 Lys Glu Glu Phe Val Gln Gly Glu Val Gln Asp Ser His Ser Tyr Lys
 565 570 575
 Asp Arg Val Asp Tyr Ser *
 580 582

<211> 330
 <212> PRT
 <213> Homo sapiens

<400> 1936
 Met Ser Val Pro Glu Glu Glu Glu Arg Leu Leu Pro Leu Thr Gln Arg
 1 5 10 15
 Trp Pro Arg Ala Ser Lys Phe Leu Leu Ser Gly Cys Ala Ala Thr Val
 20 25 30
 Ala Glu Leu Ala Thr Phe Pro Leu Asp Leu Thr Lys Thr Arg Leu Gln
 35 40 45
 Met Gln Gly Glu Ala Ala Leu Ala Arg Leu Gly Asp Gly Ala Arg Glu
 50 55 60
 Ser Ala Pro Tyr Arg Gly Met Val Arg Thr Ala Leu Gly Ile Ile Glu
 65 70 75 80
 Glu Glu Gly Phe Leu Lys Leu Trp Gln Gly Val Thr Pro Ala Ile Tyr
 85 90 95
 Arg His Val Val Tyr Ser Gly Gly Arg Met Val Thr Tyr Glu His Leu
 100 105 110
 Arg Glu Val Val Phe Gly Lys Ser Glu Asp Glu His Tyr Pro Leu Trp
 115 120 125
 Lys Ser Val Ile Gly Gly Met Met Ala Gly Val Ile Gly Gln Phe Leu
 130 135 140
 Ala Asn Pro Thr Asp Leu Val Lys Val Gln Met Gln Met Glu Gly Lys
 145 150 155 160
 Arg Lys Leu Glu Gly Lys Pro Leu Arg Phe Arg Gly Val His His Ala
 165 170 175
 Phe Ala Lys Ile Leu Ala Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly
 180 185 190
 Trp Val Pro Asn Ile Gln Arg Ala Ala Leu Val Asn Met Gly Asp Leu
 195 200 205
 Thr Thr Tyr Asp Thr Val Lys His Tyr Leu Val Leu Asn Thr Pro Leu
 210 215 220
 Glu Asp Asn Ile Met Thr His Gly Leu Ser Ser Leu Cys Ser Gly Leu
 225 230 235 240
 Val Ala Ser Ile Leu Gly Thr Pro Ala Asp Val Ile Lys Ser Arg Ile
 245 250 255
 Met Asn Gln Pro Arg Asp Lys Gln Gly Arg Gly Leu Leu Tyr Lys Ser
 260 265 270
 Ser Thr Asp Cys Leu Ile Gln Ala Val Gln Gly Glu Gly Phe Met Ser
 275 280 285
 Leu Tyr Lys Gly Phe Leu Pro Ser Trp Leu Arg Met Val Lys Leu Gly
 290 295 300
 Leu Leu Pro Leu Phe Phe Phe Phe Val Leu Lys Leu Leu Leu Ile Tyr
 305 310 315 320
 Lys His Phe Pro Phe Ser Leu Leu Val *
 325 329

<210> 1937
 <211> 496
 <212> PRT
 <213> Homo sapiens

<400> 1937
 Met Arg Val Gly Ala Glu Tyr Gln Ala Arg Ile Pro Glu Phe Asp Pro
 1 5 10 15
 Gly Ala Thr Lys Tyr Thr Asp Lys Asp Asn Gly Gly Met Leu Val Trp
 20 25 30
 Ser Pro Tyr His Ser Ile Pro Asp Ala Lys Leu Asp Glu Tyr Ile Ala
 35 40 45


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Ile Ala Lys Glu Lys His Gly Tyr Asn Val Glu Gln Ala Leu Gly Met
  50                      55                      60
Leu Phe Trp His Lys His Asn Ile Glu Lys Ser Leu Ala Asp Leu Pro
  65                      70                      75                      80
Asn Phe Thr Pro Phe Pro Asp Glu Trp Thr Val Glu Asp Lys Val Leu
                      85                      90                      95
Phe Glu Gln Ala Phe Ser Phe His Gly Lys Ser Phe His Arg Ile Gln
                      100                      105                      110
Gln Met Leu Pro Asp Lys Thr Ile Ala Ser Leu Val Lys Tyr Tyr Tyr
                      115                      120                      125
Ser Trp Lys Lys Thr Arg Ser Arg Thr Ser Leu Met Asp Arg Gln Ala
                      130                      135                      140
Arg Lys Leu Ala Asn Arg His Asn Gln Gly Asp Ser Asp Asp Asp Val
145                      150                      155                      160
Glu Glu Thr His Pro Met Asp Gly Asn Asp Ser Asp Tyr Asp Pro Lys
                      165                      170                      175
Lys Glu Ala Lys Lys Glu Gly Asn Thr Glu Gln Pro Val Gln Thr Ser
                      180                      185                      190
Lys Ile Gly Leu Gly Arg Arg Glu Tyr Gln Ser Leu Gln His Arg His
                      195                      200                      205
His Ser Gln Arg Ser Lys Cys Arg Pro Pro Lys Gly Met Tyr Leu Thr
210                      215                      220
Gln Glu Asp Val Val Ala Val Ser Cys Ser Pro Asn Ala Ala Asn Thr
225                      230                      235                      240
Ile Leu Arg Gln Leu Asp Met Glu Leu Ile Ser Leu Lys Arg Gln Val
                      245                      250                      255
Gln Asn Ala Lys Gln Val Asn Ser Ala Leu Lys Gln Lys Met Glu Gly
                      260                      265                      270
Gly Ile Glu Glu Phe Lys Pro Pro Glu Ser Asn Gln Lys Ile Asn Ala
275                      280                      285
Arg Trp Thr Thr Glu Glu Gln Leu Leu Ala Val Gln Gly Val Arg Lys
290                      295                      300
Tyr Gly Lys Asp Phe Gln Ala Ile Ala Asp Val Ile Gly Asn Lys Thr
305                      310                      315                      320
Val Gly Gln Val Lys Asn Phe Phe Val Asn Tyr Arg Arg Arg Phe Asn
                      325                      330                      335
Leu Glu Glu Val Leu Gln Glu Trp Glu Ala Glu Gln Gly Thr Gln Ala
                      340                      345                      350
Ser Asn Gly Asp Ala Ser Thr Leu Gly Glu Glu Thr Lys Ser Ala Ser
355                      360                      365
Asn Val Pro Ser Gly Lys Ser Thr Asp Glu Glu Glu Glu Ala Gln Thr
370                      375                      380
Pro Gln Ala Pro Arg Thr Leu Gly Pro Ser Pro Pro Ala Pro Ser Ser
385                      390                      395                      400
Thr Pro Thr Pro Thr Ala Pro Ile Ala Thr Leu Asn Gln Pro Pro Pro
                      405                      410                      415
Leu Leu Arg Pro Thr Leu Pro Ala Ala Pro Ala Leu His Arg Gln Pro
                      420                      425                      430
Pro Pro Leu Gln Gln Gln Ala Arg Phe Ile Gln Pro Arg Pro Thr Leu
435                      440                      445
Asn Gln Pro Pro Pro Pro Leu Ile Arg Pro Ala Asn Ser Met Pro Pro
450                      455                      460
Arg Leu Asn Pro Arg Pro Val Leu Ser Thr Val Gly Gly Gln Gln Pro
465                      470                      475                      480
Pro Ser Leu Ile Gly Ile Gln Thr Asp Ser Gln Ser Ser Leu His *
                      485                      490                      495

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<210> 1938
<211> 290
<212> PRT
<213> Homo sapiens

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<400> 1938

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Met Pro Gly Thr Gly Val Gln Glu Gly Cys Leu Val Thr Arg Gln Ile
 1          5          10          15
Gln Gln Pro Gln Glu Leu Leu Ser Ala Val Arg Asn Ser Val His Pro
          20          25          30
Pro Gln Glu Gln Pro Arg Leu Glu Gly Ser Lys Leu Ser Ser Ser Pro
          35          40          45
Ala Ser Pro Ser Ser Ser Leu Gln Asn Ser Thr Leu Gln Pro Asp Ala
          50          55          60
Phe Pro Pro Gly Leu Leu His Ser Gly Asn Asn Gln Ile Thr Ala Glu
          65          70          75          80
Arg Lys Val Cys Asn Cys Cys Ser Gln Glu Leu Glu Thr Ser Phe Thr
          85          90          95
Tyr Val Asp Lys Asn Ile Asn Leu Glu Gln Arg Asn Arg Ser Ser Pro
          100          105          110
Ser Ala Lys Gly His Asn His Pro Gly Glu Leu Gly Trp Glu Asn Pro
          115          120          125
Asn Glu Trp Ser Gln Glu Ala Ala Ile Ser Leu Ile Ser Glu Glu Glu
          130          135          140
Asp Asp Thr Ser Ser Glu Ala Thr Ser Ser Gly Lys Ser Ile Asp Tyr
145          150          155          160
Gly Phe Ile Ser Ala Ile Leu Phe Leu Val Thr Gly Ile Leu Leu Val
          165          170          175
Ile Ile Ser Tyr Ile Val Pro Arg Glu Val Thr Val Asp Pro Asn Thr
          180          185          190
Val Ala Ala Arg Glu Met Glu Arg Leu Glu Lys Glu Ser Ala Arg Leu
          195          200          205
Gly Ala His Leu Asp Arg Cys Val Ile Ala Gly Leu Cys Leu Leu Thr
          210          215          220
Leu Gly Gly Val Ile Leu Ser Cys Leu Leu Met Met Ser Met Trp Lys
225          230          235          240
Gly Glu Leu Tyr Arg Arg Asn Arg Phe Ala Ser Ser Lys Glu Ser Ala
          245          250          255
Lys Leu Tyr Gly Ser Phe Asn Phe Arg Met Lys Thr Ser Thr Asn Glu
          260          265          270
Asn Thr Leu Glu Leu Ser Leu Val Glu Glu Asp Ala Leu Ala Val Gln
          275          280          285
Ser *
289

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<210> 1939

<211> 460

<212> PRT

<213> Homo sapiens

<400> 1939

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Met Ser Asn Cys Leu Gln Asn Phe Leu Lys Ile Thr Ser Thr Arg Leu
 1          5          10          15
Leu Cys Ser Arg Leu Cys Gln Gln Leu Arg Ser Lys Arg Lys Phe Phe
          20          25          30
Gly Thr Val Pro Ile Ser Arg Leu His Arg Arg Val Val Ile Thr Gly
          35          40          45
Ile Gly Leu Val Thr Pro Leu Gly Val Gly Thr His Leu Val Trp Asp
          50          55          60
Arg Leu Ile Gly Gly Glu Ser Gly Ile Val Ser Leu Val Gly Glu Glu
          65          70          75          80
Tyr Lys Ser Ile Pro Cys Ser Val Ala Ala Tyr Val Pro Arg Gly Ser
          85          90          95
Asp Glu Gly Gln Phe Asn Glu Gln Asn Phe Val Ser Lys Ser Asp Ile
          100          105          110

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Lys Ser Met Ser Ser Pro Thr Ile Met Ala Ile Gly Ala Ala Glu Leu
 115 120 125
 Ala Met Lys Asp Ser Gly Trp His Pro Gln Ser Glu Ala Asp Gln Val
 130 135 140
 Ala Thr Gly Val Ala Ile Gly Met Gly Met Ile Pro Leu Glu Val Val
 145 150 155 160
 Ser Glu Thr Ala Leu Asn Phe Gln Thr Lys Gly Tyr Asn Lys Val Ser
 165 170 175
 Pro Phe Phe Val Pro Lys Ile Leu Val Asn Met Ala Ala Gly Gln Val
 180 185 190
 Ser Ile Arg Tyr Lys Leu Lys Gly Pro Asn His Ala Val Ser Thr Ala
 195 200 205
 Cys Thr Thr Gly Ala His Ala Val Gly Asp Ser Phe Arg Phe Ile Ala
 210 215 220
 His Gly Asp Ala Asp Val Met Val Ala Gly Gly Thr Asp Ser Cys Ile
 225 230 235 240
 Ser Pro Leu Ser Leu Ala Gly Phe Ser Arg Ala Arg Ala Leu Ser Thr
 245 250 255
 Asn Ser Asp Pro Lys Leu Ala Cys Arg Pro Phe His Pro Lys Arg Asp
 260 265 270
 Gly Phe Val Met Gly Glu Gly Ala Ala Val Leu Val Leu Glu Glu Tyr
 275 280 285
 Glu His Ala Val Gln Arg Arg Ala Arg Ile Tyr Ala Glu Val Leu Gly
 290 295 300
 Tyr Gly Leu Ser Gly Asp Ala Gly His Ile Thr Ala Pro Asp Pro Glu
 305 310 315 320
 Gly Glu Gly Ala Leu Arg Cys Met Ala Ala Leu Lys Asp Ala Gly
 325 330 335
 Val Gln Pro Glu Glu Ile Ser Tyr Ile Asn Ala His Ala Thr Ser Thr
 340 345 350
 Pro Leu Gly Asp Ala Ala Glu Asn Lys Ala Ile Lys His Leu Phe Lys
 355 360 365
 Asp His Ala Tyr Ala Leu Ala Val Ser Ser Thr Lys Gly Ala Thr Gly
 370 375 380
 His Leu Leu Gly Ala Ala Gly Ala Val Glu Ala Ala Phe Thr Thr Leu
 385 390 395 400
 Ala Cys Tyr Tyr Gln Lys Leu Pro Pro Thr Leu Asn Leu Asp Cys Ser
 405 410 415
 Glu Pro Glu Phe Asp Leu Asn Tyr Val Pro Leu Lys Ala Gln Glu Trp
 420 425 430
 Lys Thr Glu Lys Arg Phe Ile Gly Leu Thr Asn Ser Phe Gly Phe Gly
 435 440 445
 Gly Thr Asn Ala Thr Leu Cys Ile Ala Gly Leu *
 450 455 459

<210> 1940

<211> 167

<212> PRT

<213> Homo sapiens

<400> 1940

Met Cys Thr Gly Phe Leu Cys Asn Phe Ser Thr Glu Ser Asn Gly Phe
 1 5 10 15
 Ser Gln Leu Phe Pro Gly Leu Arg Pro Trp Leu Ala Val Leu Ala Gly
 20 25 30
 Leu Phe Tyr Leu Pro Val Tyr Arg Asp Tyr Ile Met Ser Phe Gly Leu
 35 40 45
 Cys Pro Val Ser Arg Gln Ser Leu Asp Phe Ile Leu Ser Gln Pro Gln
 50 55 60
 Leu Gly Gln Ala Val Val Ile Met Val Gly Gly Ala His Glu Ala Leu
 65 70 75 80

Tyr Ser Val Pro Gly Glu His Cys Leu Thr Leu Gln Lys Arg Lys Gly
 85 90 95
 Phe Val Arg Leu Ala Leu Arg His Gly Ala Ser Leu Val Pro Val Tyr
 100 105 110
 Ser Phe Gly Glu Asn Asp Ile Phe Arg Leu Lys Ala Phe Ala Thr Gly
 115 120 125
 Ser Trp Gln His Trp Cys Gln Leu Thr Phe Lys Lys Leu Met Gly Phe
 130 135 140
 Ser Pro Cys Ile Phe Trp Gly Arg Gly Ile Phe Ala Thr Thr Thr Trp
 145 150 155 160
 Ser Leu His Pro Phe Gly *
 165 166

<210> 1941
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 1941
 Met Gly Asp Ile Pro Val Val Gly Leu Ser Ser Trp Lys Ala Ser Pro
 1 5 10 15
 Gly Lys Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr Arg
 20 25 30
 His Phe Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly Ala
 35 40 45
 Gly Ile Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp Leu
 50 55 60
 Leu Ile Ala Thr Lys Leu Trp Cys Thr Cys His Lys Lys Ser Leu Val
 65 70 75 80
 Glu Thr Ala Cys Arg Lys Ser Leu Lys Ala Leu Lys Leu Asn Tyr Leu
 85 90 95
 Asp Leu Tyr Leu Ile His Trp Pro Met Gly Phe Lys Pro Pro His Pro
 100 105 110
 Glu Trp Ile Met Ser Cys Ser Glu Leu Ser Phe Cys Leu Ser His Pro
 115 120 125
 Arg Val Gln Asp Leu Pro Leu Asp Glu Ser Asn Met Val Ile Pro Ser
 130 135 140
 Asp Thr Asp Phe Leu Asp Thr Trp Glu Ala Met Glu Asp Leu Val Ile
 145 150 155 160
 Thr Gly Leu Val Lys Asn Ile Gly Val Ser Asn Phe Asn His Glu Gln
 165 170 175
 Leu Glu Arg Leu Leu Asn Lys Pro Gly Leu Arg Phe Lys Pro Leu Thr
 180 185 190
 Asn Gln Ile Leu Ile Arg Phe Gln Ile Gln Arg Asn Val Ile Val Ile
 195 200 205
 Pro Gly Ser Ile Thr Pro Ser His Ile Lys Glu Asn Ile Gln Val Phe
 210 215 220
 Asp Phe Glu Leu Thr Gln His Asp Met Asp Asn Ile Leu Ser Leu Asn
 225 230 235 240
 Arg Asn Leu Arg Leu Ala Met Phe Pro Ile Thr Lys Asn His Lys Asp
 245 250 255
 Tyr Pro Phe His Ile Glu Tyr *
 260 263

<210> 1942
 <211> 1025
 <212> PRT
 <213> Homo sapiens

<400> 1942

Met	His	Arg	Lys	Lys	Val	Asp	Asn	Arg	Ile	Arg	Ile	Leu	Ile	Glu	Asn	1	5	10	15
Gly	Val	Ala	Glu	Arg	Gln	Arg	Ser	Leu	Phe	Val	Val	Val	Gly	Asp	Arg	20	25	30	
Gly	Lys	Asp	Gln	Val	Val	Ile	Leu	His	His	Met	Leu	Ser	Lys	Ala	Thr	35	40	45	
Val	Lys	Ala	Arg	Pro	Ser	Val	Leu	Trp	Cys	Tyr	Lys	Lys	Glu	Leu	Gly	50	55	60	
Phe	Ser	Ser	His	Arg	Lys	Lys	Arg	Met	Arg	Gln	Leu	Gln	Lys	Lys	Ile	65	70	75	80
Lys	Asn	Gly	Thr	Leu	Asn	Ile	Lys	Gln	Asp	Asp	Pro	Phe	Glu	Leu	Phe	85	90	95	
Ile	Ala	Ala	Thr	Asn	Ile	Arg	Tyr	Cys	Tyr	Tyr	Asn	Glu	Thr	His	Lys	100	105	110	
Ile	Leu	Gly	Asn	Thr	Phe	Gly	Met	Cys	Val	Leu	Gln	Asp	Phe	Glu	Ala	115	120	125	
Leu	Thr	Pro	Asn	Leu	Leu	Ala	Arg	Thr	Val	Glu	Thr	Val	Glu	Gly	Gly	130	135	140	
Gly	Leu	Val	Val	Ile	Leu	Leu	Arg	Thr	Met	Asn	Ser	Leu	Lys	Gln	Leu	145	150	155	160
Tyr	Thr	Val	Thr	Met	Asp	Val	His	Ser	Arg	Tyr	Arg	Thr	Glu	Ala	His	165	170	175	
Gln	Asp	Val	Val	Gly	Arg	Phe	Asn	Glu	Arg	Phe	Ile	Leu	Ser	Leu	Ala	180	185	190	
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro	195	200	205	
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro	210	215	220	
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu	225	230	235	240
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys	245	250	255	
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser	260	265	270	
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg	275	280	285	
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe	290	295	300	
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His	305	310	315	320
Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln	325	330	335	
Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn	340	345	350	
Lys	Ala	Val	Ile	Arg	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile	355	360	365	
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu	370	375	380	
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser	385	390	395	400
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr	405	410	415	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg	420	425	430	
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr	435	440	445	
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser	450	455	460	
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp	465	470	475	480
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val	485	490	495	

Ser	Gly	Cys	Pro	Leu	Pro	Glu	Ala	Cys	Glu	Leu	Tyr	Tyr	Val	Asn	Arg	500	505	510
Asp	Thr	Leu	Phe	Cys	Tyr	His	Lys	Ala	Ser	Glu	Val	Phe	Leu	Gln	Arg	515	520	525
Leu	Met	Ala	Leu	Tyr	Val	Ala	Ser	His	Tyr	Lys	Asn	Ser	Pro	Asn	Asp	530	535	540
Leu	Gln	Met	Leu	Ser	Asp	Ala	Pro	Ala	His	His	Leu	Phe	Cys	Leu	Leu	545	550	555
Pro	Pro	Val	Pro	Pro	Thr	Gln	Asn	Ala	Leu	Pro	Glu	Val	Leu	Ala	Val	565	570	575
Ile	Gln	Val	Cys	Leu	Glu	Gly	Glu	Ile	Ser	Arg	Gln	Ser	Ile	Leu	Asn	580	585	590
Ser	Leu	Ser	Arg	Gly	Lys	Lys	Ala	Ser	Gly	Asp	Leu	Ile	Pro	Trp	Thr	595	600	605
Val	Ser	Glu	Gln	Phe	Gln	Asp	Pro	Asp	Phe	Gly	Gly	Leu	Ser	Gly	Gly	610	615	620
Arg	Val	Val	Arg	Ile	Ala	Val	His	Pro	Asp	Tyr	Gln	Gly	Met	Gly	Tyr	625	630	635
Gly	Ser	Arg	Ala	Leu	Gln	Leu	Leu	Gln	Met	Tyr	Tyr	Glu	Gly	Arg	Phe	645	650	655
Pro	Cys	Leu	Glu	Lys	Val	Leu	Glu	Thr	Pro	Gln	Glu	Ile	His	Thr		660	665	670
Val	Ser	Ser	Glu	Ala	Val	Ser	Leu	Leu	Glu	Glu	Val	Ile	Thr	Pro	Arg	675	680	685
Lys	Asp	Leu	Pro	Pro	Leu	Leu	Leu	Lys	Leu	Asn	Glu	Arg	Pro	Ala	Glu	690	695	700
Arg	Leu	Asp	Tyr	Leu	Gly	Val	Ser	Tyr	Gly	Leu	Thr	Pro	Arg	Leu	Leu	705	710	715
Lys	Phe	Trp	Lys	Arg	Ala	Gly	Phe	Val	Pro	Val	Tyr	Leu	Arg	Gln	Thr	725	730	735
Pro	Asn	Asp	Leu	Thr	Gly	Glu	His	Ser	Cys	Ile	Met	Leu	Lys	Thr	Leu	740	745	750
Thr	Asp	Glu	Asp	Glu	Ala	Asp	Gln	Gly	Gly	Trp	Leu	Ala	Ala	Phe	Trp	755	760	765
Lys	Asp	Phe	Arg	Arg	Arg	Phe	Leu	Ala	Leu	Leu	Ser	Tyr	Gln	Phe	Ser	770	775	780
Thr	Phe	Ser	Pro	Ser	Leu	Ala	Leu	Asn	Ile	Ile	Gln	Asn	Arg	Asn	Met	785	790	795
Gly	Lys	Pro	Ala	Gln	Pro	Ala	Leu	Ser	Arg	Glu	Glu	Leu	Glu	Ala	Leu	805	810	815
Phe	Leu	Pro	Tyr	Asp	Leu	Lys	Arg	Leu	Glu	Met	Tyr	Ser	Arg	Asn	Met	820	825	830
Val	Asp	Tyr	His	Leu	Ile	Met	Asp	Met	Ile	Pro	Ala	Ile	Ser	Arg	Ile	835	840	845
Tyr	Phe	Leu	Asn	Gln	Leu	Gly	Asp	Leu	Ala	Leu	Ser	Ala	Ala	Gln	Ser	850	855	860
Ala	Leu	Leu	Leu	Gly	Ile	Gly	Leu	Gln	His	Lys	Ser	Val	Asp	Gln	Leu	865	870	875
Glu	Lys	Glu	Ile	Glu	Leu	Pro	Ser	Gly	Gln	Leu	Met	Gly	Leu	Phe	Asn	885	890	895
Arg	Ile	Ile	Arg	Lys	Val	Val	Lys	Leu	Phe	Asn	Glu	Val	Gln	Glu	Lys	900	905	910
Ala	Ile	Glu	Glu	Gln	Met	Val	Ala	Ala	Lys	Asp	Val	Val	Met	Glu	Pro	915	920	925
Thr	Met	Lys	Thr	Leu	Ser	Asp	Asp	Leu	Asp	Glu	Ala	Ala	Lys	Glu	Phe	930	935	940
Gln	Glu	Lys	His	Lys	Lys	Glu	Val	Gly	Lys	Leu	Lys	Ser	Met	Asp	Leu	945	950	955
Ser	Glu	Tyr	Ile	Ile	Arg	Gly	Asp	Asp	Glu	Glu	Trp	Asn	Glu	Val	Leu	965	970	975
Asn	Lys	Ala	Gly	Pro	Asn	Ala	Ser	Ile	Ile	Ser	Leu	Lys	Ser	Asp	Lys	980	985	990
Lys	Arg	Lys	Leu	Glu	Ala	Lys	Gln	Glu	Pro	Lys	Gln	Ser	Lys	Lys	Leu	995	1000	1005

Lys Asn Arg Glu Thr Lys Asn Lys Lys Asp Met Lys Leu Lys Arg Lys
 1010 1015 1020
 Lys
 1025

<210> 1943
 <211> 736
 <212> PRT
 <213> Homo sapiens

<400> 1943
 Met Ala Ala Gly Gly Ala Val Ala Ala Ala Pro Glu Cys Arg Leu Leu
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 Pro Tyr Ala Leu His Lys Trp Ser Ser Phe Ser Ser Thr Tyr Leu Pro
 20 25 30
 Glu Asn Ile Leu Val Asp Lys Pro Asn Asp Gln Ser Ser Arg Trp Ser
 35 40 45
 Ser Glu Ser Asn Tyr Pro Pro Gln Tyr Leu Ile Leu Lys Leu Glu Arg
 50 55 60
 Pro Ala Ile Val Gln Asn Ile Thr Phe Gly Lys Tyr Glu Lys Thr His
 65 70 75 80
 Val Cys Asn Leu Lys Lys Phe Lys Val Phe Gly Gly Met Asn Glu Glu
 85 90 95
 Asn Met Thr Glu Leu Leu Ser Ser Gly Leu Lys Asn Asp Tyr Asn Lys
 100 105 110
 Glu Thr Phe Thr Leu Lys His Lys Ile Asp Glu Gln Met Phe Pro Cys
 115 120 125
 Arg Phe Ile Lys Ile Val Pro Leu Leu Ser Trp Gly Pro Ser Phe Asn
 130 135 140
 Phe Ser Ile Trp Tyr Val Glu Leu Ser Gly Ile Asp Asp Pro Asp Ile
 145 150 155 160
 Val Gln Pro Cys Leu Asn Trp Tyr Ser Lys Tyr Arg Glu Gln Glu Ala
 165 170 175
 Ile Arg Leu Cys Leu Lys His Phe Arg Gln His Asn Tyr Thr Glu Ala
 180 185 190
 Phe Glu Ser Leu Gln Lys Lys Thr Lys Ile Ala Leu Glu His Pro Met
 195 200 205
 Ser Thr Asp Ile His Asp Lys Leu Val Leu Lys Gly Asp Phe Asp Ala
 210 215 220
 Cys Glu Glu Leu Ile Glu Lys Ala Val Asn Asp Gly Leu Phe Asn Gln
 225 230 235 240
 Tyr Ile Ser Gln Gln Glu Tyr Lys Pro Arg Trp Ser Gln Ile Ile Pro
 245 250 255
 Lys Ser Thr Lys Gly Asp Gly Glu Asp Asn Arg Pro Gly Met Arg Gly
 260 265 270
 Gly His Gln Met Val Ile Asp Val Gln Thr Glu Thr Val Tyr Leu Phe
 275 280 285
 Gly Gly Trp Asp Gly Thr Gln Asp Leu Ala Asp Phe Trp Ala Tyr Ser
 290 295 300
 Val Lys Glu Asn Gln Trp Thr Cys Ile Ser Arg Asp Thr Glu Lys Glu
 305 310 315 320
 Asn Gly Pro Ser Ala Arg Ser Cys His Lys Met Cys Ile Asp Ile Gln
 325 330 335
 Arg Arg Gln Ile Tyr Thr Leu Gly Arg Tyr Leu Asp Ser Ser Val Arg
 340 345 350
 Asn Ser Lys Ser Leu Lys Ser Asp Phe Tyr Arg Tyr Asp Ile Asp Thr
 355 360 365
 Asn Thr Trp Met Leu Leu Ser Glu Asp Thr Ala Ala Asp Gly Gly Pro
 370 375 380
 Lys Leu Val Phe Asp His Gln Met Cys Met Asp Ser Glu Lys His Met
 385 390 395 400

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Ile Tyr Thr Phe Gly Gly Arg Ile Leu Thr Cys Asn Gly Ser Val Asp
      405      410      415
Asp Ser Arg Ala Ser Glu Pro Gln Phe Ser Gly Leu Phe Ala Phe Asn
      420      425      430
Cys Gln Cys Gln Thr Trp Lys Leu Leu Arg Glu Asp Ser Cys Asn Ala
      435      440      445
Gly Pro Glu Asp Ile Gln Ser Arg Ile Gly His Cys Met Leu Phe His
      450      455      460
Ser Lys Asn Arg Cys Leu Tyr Val Phe Gly Gly Gln Arg Ser Lys Thr
      465      470      475      480
Tyr Leu Asn Asp Phe Phe Ser Tyr Asp Val Asp Ser Asp His Val Asp
      485      490      495
Ile Ile Ser Asp Gly Thr Lys Lys Asp Ser Gly Met Val Pro Met Thr
      500      505      510
Gly Phe Thr Gln Arg Ala Thr Ile Asp Pro Glu Leu Asn Glu Ile His
      515      520      525
Val Leu Ser Gly Leu Ser Lys Asp Lys Glu Lys Arg Glu Glu Asn Val
      530      535      540
Arg Asn Ser Phe Trp Ile Tyr Asp Ile Val Arg Asn Ser Trp Ser Cys
      545      550      555      560
Val Tyr Lys Asn Asp Gln Ala Ala Lys Asp Asn Pro Thr Lys Ser Leu
      565      570      575
Gln Glu Glu Glu Pro Cys Pro Arg Phe Ala His Gln Leu Val Tyr Asp
      580      585      590
Glu Leu His Lys Val His Tyr Leu Phe Gly Gly Asn Pro Gly Lys Ser
      595      600      605
Cys Ser Pro Lys Met Arg Leu Asp Asp Phe Trp Ser Leu Lys Leu Cys
      610      615      620
Arg Pro Ser Lys Asp Tyr Leu Leu Arg His Cys Lys Tyr Leu Ile Arg
      625      630      635      640
Lys His Arg Phe Glu Glu Lys Ala Gln Val Asp Pro Leu Ser Ala Leu
      645      650      655
Lys Tyr Leu Gln Asn Asp Leu Tyr Ile Thr Val Asp His Ser Asp Pro
      660      665      670
Glu Glu Thr Lys Glu Phe Gln Leu Leu Ala Ser Ala Leu Phe Lys Ser
      675      680      685
Gly Ser Asp Phe Thr Ala Leu Gly Phe Ser Asp Val Asp His Thr Tyr
      690      695      700
Ala Gln Arg Thr Gln Leu Phe Asp Thr Leu Val Asn Phe Phe Pro Asp
      705      710      715      720
Ser Met Thr Pro Pro Lys Gly Asn Leu Val Asp Leu Ile Thr Leu *
      725      730      735

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<210> 1944

<211> 132

<212> PRT

<213> Homo sapiens

<400> 1944

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Met Ala Pro Ser Leu Trp Lys Gly Leu Val Gly Ile Gly Leu Phe Ala
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Leu Ala His Ala Phe Ser Ala Ala Gln His Arg Ser Tyr Met Arg
      20      25      30
Leu Thr Glu Lys Glu Asp Glu Ser Leu Pro Ile Asp Ile Val Pro Gln
      35      40      45
Thr Leu Leu Ala Phe Ala Val Thr Cys Tyr Gly Ile Val His Ile Ala
      50      55      60
Gly Glu Phe Lys Asp Met Asp Ala Thr Ser Glu Leu Lys Asn Lys Thr
      65      70      75      80
Phe Asp Thr Leu Arg Asn His Pro Ser Phe Tyr Val Phe Asn His Arg
      85      90      95

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Gly Arg Val Leu Phe Arg Pro Ser Asp Thr Ala Asn Ser Ser Asn Gln
 100 105 110
 Asp Ala Leu Ser Ser Asn Thr Ser Leu Lys Leu Arg Lys Leu Glu Ser
 115 120 125
 Leu Arg Arg *
 130 131

<210> 1945
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 1945
 Met Arg Lys Pro Asp Ser Lys Ile Val Leu Leu Gly Asp Met Asn Val
 1 5 10 15
 Gly Lys Thr Ser Leu Leu Gln Arg Tyr Met Glu Arg Arg Phe Pro Asp
 20 25 30
 Thr Val Ser Thr Val Gly Gly Ala Phe Tyr Leu Lys Gln Trp Arg Ser
 35 40 45
 Tyr Asn Ile Ser Ile Trp Asp Thr Ala Gly Arg Glu Gln Phe His Gly
 50 55 60
 Leu Gly Ser Met Tyr Cys Arg Gly Ala Ala Ala Ile Ile Leu Thr Tyr
 65 70 75 80
 Asp Val Asn His Arg Gln Ser Leu Val Glu Leu Glu Asp Arg Phe Leu
 85 90 95
 Gly Leu Thr Asp Thr Ala Ser Lys Asp Cys Leu Phe Ala Ile Val Gly
 100 105 110
 Asn Lys Val Asp Leu Thr Glu Glu Gly Ala Leu Ala Gly Gln Glu Lys
 115 120 125
 Glu Glu Cys Ser Pro Asn Met Asp Ala Gly Asp Arg Val Ser Pro Arg
 130 135 140
 Ala Pro Lys Gln Val Gln Leu Glu Asp Ala Val Ala Leu Tyr Lys Lys
 145 150 155 160
 Ile Leu Lys Tyr Lys Met Leu Asp Glu Gln Asp Val Pro Ala Ala Glu
 165 170 175
 Gln Met Cys Phe Glu Thr Ser Ala Lys Thr Gly Tyr Asn Val Asp Leu
 180 185 190
 Leu Phe Glu Thr Leu Phe Asp Leu Val Val Pro Met Ile Leu Gln Gln
 195 200 205
 Arg Ala Glu Arg Pro Ser His Thr Val Asp Ile Ser Ser His Lys Pro
 210 215 220
 Pro Lys Arg Thr Arg Ser Gly Cys Cys Ala *
 225 230 234

<210> 1946
 <211> 1669
 <212> PRT
 <213> Homo sapiens

<400> 1946
 Met Pro Leu Gly Ser Lys Leu Thr Gly Val Ile Val Glu Asn Glu Asn
 1 5 10 15
 Ile Thr Lys Glu Gly Gly Leu Val Asp Met Ala Lys Lys Glu Asn Asp
 20 25 30
 Leu Asn Ala Glu Pro Asn Leu Lys Gln Thr Ile Lys Ala Thr Val Glu
 35 40 45
 Asn Gly Lys Lys Asp Gly Ile Ala Val Asp His Val Val Gly Leu Asn
 50 55 60

Thr	Glu	Lys	Tyr	Ala	Glu	Thr	Val	Lys	Leu	Lys	His	Lys	Arg	Ser	Pro
65					70					75					80
Gly	Lys	Val	Lys	Asp	Ile	Ser	Ile	Asp	Val	Glu	Arg	Arg	Asn	Glu	Asn
			85						90					95	
Ser	Glu	Val	Asp	Thr	Ser	Ala	Gly	Ser	Gly	Ser	Ala	Pro	Ser	Val	Leu
			100					105					110		
His	Gln	Arg	Asn	Gly	Gln	Thr	Glu	Asp	Val	Ala	Thr	Gly	Pro	Arg	Arg
			115				120					125			
Ala	Glu	Lys	Thr	Ser	Val	Ala	Thr	Ser	Thr	Glu	Gly	Lys	Asp	Lys	Asp
			130				135					140			
Val	Thr	Leu	Ser	Pro	Val	Lys	Ala	Gly	Pro	Ala	Thr	Thr	Thr	Ser	Ser
145					150					155					160
Glu	Thr	Arg	Gln	Ser	Glu	Val	Ala	Leu	Pro	Cys	Thr	Ser	Ile	Glu	Ala
				165					170					175	
Asp	Glu	Gly	Leu	Ile	Ile	Gly	Thr	His	Ser	Arg	Asn	Asn	Pro	Leu	His
			180					185					190		
Val	Gly	Ala	Glu	Ala	Ser	Glu	Cys	Thr	Val	Phe	Ala	Ala	Ala	Glu	Glu
			195				200					205			
Gly	Gly	Ala	Val	Val	Thr	Glu	Gly	Phe	Ala	Glu	Ser	Glu	Thr	Phe	Leu
			210				215					220			
Thr	Ser	Thr	Lys	Glu	Gly	Ser	Gly	Glu	Cys	Ala	Val	Ala	Glu	Ser	
225					230				235						240
Glu	Asp	Arg	Ala	Ala	Asp	Leu	Leu	Ala	Val	His	Ala	Val	Lys	Ile	Glu
				245					250					255	
Ala	Asn	Val	Asn	Ser	Val	Val	Thr	Glu	Glu	Lys	Asp	Asp	Ala	Val	Thr
			260					265					270		
Ser	Ala	Gly	Ser	Glu	Glu	Lys	Cys	Asp	Gly	Ser	Leu	Ser	Arg	Asp	Ser
			275				280						285		
Glu	Ile	Val	Glu	Gly	Thr	Ile	Thr	Phe	Ile	Ser	Glu	Val	Glu	Ser	Asp
			290				295					300			
Gly	Ala	Val	Thr	Ser	Ala	Gly	Thr	Glu	Ile	Arg	Ala	Gly	Ser	Ile	Ser
305					310					315					320
Ser	Glu	Glu	Val	Asp	Gly	Ser	Gln	Gly	Asn	Met	Met	Arg	Met	Gly	Pro
				325					330					335	
Lys	Lys	Glu	Thr	Glu	Gly	Thr	Val	Thr	Cys	Thr	Gly	Ala	Glu	Gly	Arg
			340					345					350		
Ser	Asp	Asn	Phe	Val	Ile	Cys	Ser	Val	Thr	Gly	Ala	Gly	Pro	Arg	Glu
			355				360					365			
Glu	Arg	Met	Val	Thr	Gly	Ala	Gly	Val	Val	Leu	Gly	Asp	Asn	Asp	Ala
			370			375					380				
Pro	Pro	Gly	Thr	Ser	Ala	Ser	Gln	Glu	Gly	Asp	Gly	Ser	Val	Asn	Asp
385					390					395					400
Gly	Thr	Glu	Gly	Glu	Ser	Ala	Val	Thr	Ser	Thr	Gly	Ile	Thr	Glu	Asp
				405					410					415	
Gly	Glu	Gly	Pro	Ala	Ser	Cys	Thr	Gly	Ser	Glu	Asp	Ser	Ser	Glu	Gly
				420				425					430		
Phe	Ala	Ile	Ser	Ser	Glu	Ser	Glu	Glu	Asn	Gly	Glu	Ser	Ala	Met	Asp
			435				440					445			
Ser	Thr	Val	Ala	Lys	Glu	Gly	Thr	Asn	Val	Pro	Leu	Val	Ala	Ala	Gly
			450				455					460			
Pro	Cys	Asp	Asp	Glu	Gly	Ile	Val	Thr	Ser	Thr	Gly	Ala	Lys	Glu	Glu
465					470					475					480
Asp	Glu	Glu	Gly	Glu	Asp	Val	Val	Thr	Ser	Thr	Gly	Arg	Gly	Asn	Glu
				485					490					495	
Ile	Gly	His	Ala	Ser	Thr	Cys	Thr	Gly	Leu	Gly	Glu	Glu	Ser	Glu	Gly
				500				505					510		
Val	Leu	Ile	Cys	Glu	Ser	Ala	Glu	Gly	Asp	Ser	Gln	Ile	Gly	Thr	Val
				515				520					525		
Val	Glu	His	Val	Glu	Ala	Glu	Ala	Gly	Ala	Ala	Ile	Met	Asn	Ala	Asn
				530			535					540			
Glu	Asn	Asn	Val	Asp	Ser	Met	Ser	Gly	Thr	Glu	Lys	Gly	Ser	Lys	Asp
545					550					555					560
Thr	Asp	Ile	Cys	Ser	Ser	Ala	Lys	Gly	Ile	Val	Glu	Ser	Ser	Val	Thr
				565					570						575

Ser Ala Val Ser Gly Lys Asp Glu Val Thr Pro Val Pro Gly Gly Cys
 580 585 590
 Glu Gly Pro Met Thr Ser Ala Ala Ser Asp Gln Ser Asp Ser Gln Leu
 595 600 605
 Glu Lys Val Glu Asp Thr Thr Ile Ser Thr Gly Leu Val Gly Gly Ser
 610 615 620
 Tyr Asp Val Leu Val Ser Gly Glu Val Pro Glu Cys Glu Val Ala His
 625 630 635 640
 Thr Ser Pro Ser Glu Lys Glu Asp Glu Asp Ile Ile Thr Ser Val Glu
 645 650 655
 Asn Glu Glu Cys Asp Gly Leu Met Ala Thr Thr Ala Ser Gly Asp Ile
 660 665 670
 Thr Asn Gln Asn Ser Leu Ala Gly Lys Asn Gln Gly Lys Val Leu
 675 680 685
 Ile Ile Ser Thr Ser Thr Thr Asn Asp Tyr Thr Pro Gln Val Ser Ala
 690 695 700
 Ile Thr Asp Val Glu Gly Gly Leu Ser Asp Ala Leu Arg Thr Glu Glu
 705 710 715 720
 Asn Met Glu Gly Thr Arg Val Thr Thr Glu Glu Phe Glu Ala Pro Met
 725 730 735
 Pro Ser Ala Val Ser Gly Asp Asp Ser Gln Leu Thr Ala Ser Arg Ser
 740 745 750
 Glu Glu Lys Asp Glu Cys Ala Met Ile Ser Thr Ser Ile Gly Glu Glu
 755 760 765
 Phe Glu Leu Pro Ile Ser Ser Ala Thr Thr Ile Lys Cys Ala Glu Ser
 770 775 780
 Leu Gln Pro Val Ala Ala Val Glu Glu Arg Ala Thr Gly Pro Val
 785 790 795 800
 Leu Ile Ser Thr Ala Asp Phe Glu Gly Pro Met Pro Ser Ala Pro Pro
 805 810 815
 Glu Ala Glu Ser Pro Leu Ala Ser Thr Ser Lys Glu Glu Lys Asp Glu
 820 825 830
 Cys Ala Leu Ile Ser Thr Ser Ile Ala Glu Glu Cys Glu Ala Ser Val
 835 840 845
 Ser Gly Val Val Val Glu Ser Glu Asn Glu Arg Ala Gly Thr Val Met
 850 855 860
 Glu Glu Lys Asp Gly Ser Gly Ile Ile Ser Thr Ser Ser Val Glu Asp
 865 870 875 880
 Cys Glu Gly Pro Val Ser Ser Ala Val Pro Gln Glu Glu Gly Asp Pro
 885 890 895
 Ser Val Thr Pro Ala Glu Glu Met Gly Asp Thr Ala Met Ile Ser Thr
 900 905 910
 Ser Thr Ser Glu Gly Cys Glu Ala Val Met Ile Gly Ala Val Leu Gln
 915 920 925
 Asp Glu Asp Arg Leu Thr Ile Thr Arg Val Glu Asp Leu Ser Asp Ala
 930 935 940
 Ala Ile Ile Ser Thr Ser Thr Ala Glu Cys Met Pro Ile Ser Ala Ser
 945 950 955 960
 Ile Asp Arg His Glu Glu Asn Gln Leu Thr Ala Asp Asn Pro Glu Gly
 965 970 975
 Asn Gly Asp Leu Ser Ala Thr Glu Val Ser Lys His Lys Val Pro Met
 980 985 990
 Pro Ser Leu Ile Ala Glu Asn Asn Cys Arg Cys Pro Gly Pro Val Arg
 995 1000 1005
 Gly Gly Lys Glu Pro Gly Pro Val Leu Ala Val Ser Thr Glu Glu Gly
 1010 1015 1020
 His Asn Gly Pro Ser Val His Lys Pro Ser Ala Gly Gln Gly His Pro
 1025 1030 1035 1040
 Ser Ala Val Cys Ala Glu Lys Glu Glu Lys His Gly Lys Glu Cys Pro
 1045 1050 1055
 Glu Ile Gly Pro Phe Ala Gly Arg Gly Gln Lys Glu Ser Thr Leu His
 1060 1065 1070
 Leu Ile Asn Ala Glu Glu Lys Asn Val Leu Leu Asn Ser Leu Gln Lys
 1075 1080 1085

Glu Asp Lys Ser Pro Glu Thr Gly Thr Ala Gly Gly Ser Ser Thr Ala
 1090 1095 1100
 Ser Tyr Ser Ala Gly Arg Gly Leu Glu Gly Asn Ala Asn Ser Pro Ala
 1105 1110 1115 1120
 His Leu Arg Gly Pro Glu Gln Pro Ser Gly Gln Thr Ala Lys Asp Pro
 1125 1130 1135
 Ser Val Ser Ile Arg Tyr Leu Ala Ala Val Asn Thr Gly Ala Ile Lys
 1140 1145 1150
 Ala Asp Asp Met Pro Pro Val Gln Gly Thr Val Ala Glu His Ser Phe
 1155 1160 1165
 Leu Pro Ala Glu Gln Gln Gly Ser Glu Asp Asn Leu Lys Thr Ser Thr
 1170 1175 1180
 Thr Lys Cys Ile Thr Gly Gln Glu Ser Lys Ile Ala Pro Ser His Thr
 1185 1190 1195 1200
 Met Ile Pro Pro Ala Thr Tyr Ser Val Ala Leu Leu Ala Pro Lys Cys
 1205 1210 1215
 Glu Gln Asp Leu Thr Ile Lys Asn Asp Tyr Ser Gly Lys Trp Thr Asp
 1220 1225 1230
 Gln Ala Ser Ala Glu Lys Thr Gly Asp Asp Asn Ser Thr Arg Lys Ser
 1235 1240 1245
 Phe Pro Glu Glu Gly Asp Ile Met Val Thr Val Ser Ser Glu Glu Asn
 1250 1255 1260
 Val Cys Asp Ile Gly Asn Glu Glu Ser Pro Leu Asn Val Leu Gly Gly
 1265 1270 1275 1280
 Leu Lys Leu Lys Ala Asn Leu Lys Met Glu Ala Tyr Val Pro Ser Glu
 1285 1290 1295
 Glu Glu Lys Asn Gly Glu Ile Leu Ala Pro Pro Glu Ser Leu Cys Gly
 1300 1305 1310
 Gly Lys Pro Ser Gly Ile Ala Glu Leu Gln Arg Glu Pro Leu Leu Val
 1315 1320 1325
 Asn Glu Ser Leu Asn Val Glu Asn Ser Gly Phe Arg Thr Asn Glu Glu
 1330 1335 1340
 Ile His Ser Glu Ser Tyr Asn Lys Gly Glu Ile Ser Ser Gly Arg Lys
 1345 1350 1355 1360
 Asp Asn Ala Glu Ala Ile Ser Gly His Ser Val Glu Ala Asp Pro Lys
 1365 1370 1375
 Glu Val Glu Glu Glu Glu Arg His Met Pro Lys Arg Lys Arg Lys Gln
 1380 1385 1390
 His Tyr Leu Ser Ser Glu Asp Glu Pro Asp Asp Asn Pro Asp Val Leu
 1395 1400 1405
 Asp Ser Arg Ile Glu Thr Ala Gln Arg Gln Cys Pro Glu Thr Glu Pro
 1410 1415 1420
 His Asp Thr Lys Glu Glu Asn Ser Arg Asp Leu Glu Glu Leu Pro Lys
 1425 1430 1435 1440
 Thr Ser Ser Glu Ala Asn Ser Thr Thr Ser Arg Val Met Glu Glu Lys
 1445 1450 1455
 Asp Glu Tyr Ser Ser Ser Glu Thr Thr Gly Glu Lys Pro Glu Gln Asn
 1460 1465 1470
 Asp Asp Asp Thr Ile Lys Ser Gln Glu Glu Asp Gln Pro Ile Ile Ile
 1475 1480 1485
 Lys Arg Lys Arg Gly Arg Pro Arg Lys Tyr Pro Val Glu Thr Thr Leu
 1490 1495 1500
 Lys Met Lys Asp Asp Ser Lys Thr Asp Thr Gly Ile Val Thr Val Glu
 1505 1510 1515 1520
 Gln Ser Pro Ser Ser Ser Lys Leu Lys Val Met Gln Thr Asp Glu Ser
 1525 1530 1535
 Asn Lys Glu Thr Ala Asn Leu Gln Glu Arg Ser Ile Ser Asn Asp Asp
 1540 1545 1550
 Gly Glu Glu Lys Ile Val Thr Ser Val Arg Arg Arg Gly Arg Lys Pro
 1555 1560 1565
 Lys Arg Ser Leu Thr Val Ser Asp Asp Ala Glu Ser Ser Glu Pro Glu
 1570 1575 1580
 Arg Lys Arg Gln Lys Ser Val Ser Asp Pro Val Glu Asp Lys Lys Glu
 1585 1590 1595 1600

Gln Glu Ser Asp Glu Glu Glu Glu Glu Glu Glu Asp Glu Pro Ser
 1605 1610 1615
 Gly Ala Thr Thr Arg Ser Thr Thr Arg Ser Glu Ala Gln Arg Ser Lys
 1620 1625 1630
 Thr Gln Leu Ser Pro Ser Ile Lys Arg Lys Arg Glu Val Ser Pro Pro
 1635 1640 1645
 Gly Ala Arg Thr Arg Gly Gln Gln Arg Val Glu Glu Ala Pro Val Lys
 1650 1655 1660
 Lys Ala Lys Arg *
 1665 1668

<210> 1947
 <211> 1716
 <212> PRT
 <213> Homo sapiens

<400> 1947
 Met Pro Leu Gly Ser Lys Leu Thr Gly Val Ile Val Glu Asn Glu Asn
 1 5 10 15
 Ile Thr Lys Glu Gly Gly Leu Val Asp Met Ala Lys Lys Glu Asn Asp
 20 25 30
 Leu Asn Ala Glu Pro Asn Leu Lys Gln Thr Ile Lys Ala Thr Val Glu
 35 40 45
 Asn Gly Lys Lys Asp Gly Ile Ala Val Asp His Val Val Gly Leu Asn
 50 55 60
 Thr Glu Lys Tyr Ala Glu Thr Val Lys Leu Lys His Lys Arg Ser Pro
 65 70 75 80
 Gly Lys Val Lys Asp Ile Ser Ile Asp Val Glu Arg Arg Asn Glu Asn
 85 90 95
 Ser Glu Val Asp Thr Ser Ala Gly Ser Gly Ser Ala Pro Ser Val Leu
 100 105 110
 His Gln Arg Asn Gly Gln Thr Glu Asp Val Ala Thr Gly Pro Arg Arg
 115 120 125
 Ala Glu Lys Thr Ser Val Ala Thr Ser Thr Glu Gly Lys Asp Lys Asp
 130 135 140
 Val Thr Leu Ser Pro Val Lys Ala Gly Pro Ala Thr Thr Thr Ser Ser
 145 150 155 160
 Glu Thr Arg Gln Ser Glu Val Ala Leu Pro Cys Thr Ser Ile Glu Ala
 165 170 175
 Asp Glu Gly Leu Ile Ile Gly Thr His Ser Arg Asn Asn Pro Leu His
 180 185 190
 Val Gly Ala Glu Ala Ser Glu Cys Thr Val Phe Ala Ala Ala Glu Glu
 195 200 205
 Gly Gly Ala Val Val Thr Glu Gly Phe Ala Glu Ser Glu Thr Phe Leu
 210 215 220
 Thr Ser Thr Lys Glu Gly Glu Ser Gly Glu Cys Ala Val Ala Glu Ser
 225 230 235 240
 Glu Asp Arg Ala Ala Asp Leu Leu Ala Val His Ala Val Lys Ile Glu
 245 250 255
 Ala Asn Val Asn Ser Val Val Thr Glu Glu Lys Asp Asp Ala Val Thr
 260 265 270
 Ser Ala Gly Ser Glu Glu Lys Cys Asp Gly Ser Leu Ser Arg Asp Ser
 275 280 285
 Glu Ile Val Glu Gly Thr Ile Thr Phe Ile Ser Glu Val Glu Ser Asp
 290 295 300
 Gly Ala Val Thr Ser Ala Gly Thr Glu Ile Arg Ala Gly Ser Ile Ser
 305 310 315 320
 Ser Glu Glu Val Asp Gly Ser Gln Gly Asn Met Met Arg Met Gly Pro
 325 330 335
 Lys Lys Glu Thr Glu Gly Thr Val Thr Cys Thr Gly Ala Glu Gly Arg
 340 345 350

Ser	Asp	Asn	Phe	Val	Ile	Cys	Ser	Val	Thr	Gly	Ala	Gly	Pro	Arg	Glu		
		355					360					365					
Glu	Arg	Met	Val	Thr	Gly	Ala	Gly	Val	Val	Leu	Gly	Asp	Asn	Asp	Ala		
		370				375					380						
Pro	Pro	Gly	Thr	Ser	Ala	Ser	Gln	Glu	Gly	Asp	Gly	Ser	Val	Asn	Asp		
		385				390				395				400			
Gly	Thr	Glu	Gly	Glu	Ser	Ala	Val	Thr	Ser	Thr	Gly	Ile	Thr	Glu	Asp		
				405					410				415				
Gly	Glu	Gly	Pro	Ala	Ser	Cys	Thr	Gly	Ser	Glu	Asp	Ser	Ser	Glu	Gly		
			420					425					430				
Phe	Ala	Ile	Ser	Ser	Glu	Ser	Glu	Glu	Asn	Gly	Glu	Ser	Ala	Met	Asp		
		435					440						445				
Ser	Thr	Val	Ala	Lys	Glu	Gly	Thr	Asn	Val	Pro	Leu	Val	Ala	Ala	Gly		
		450				455					460						
Pro	Cys	Asp	Asp	Glu	Gly	Ile	Val	Thr	Ser	Thr	Gly	Ala	Lys	Glu	Glu		
		465			470					475				480			
Asp	Glu	Glu	Gly	Glu	Asp	Val	Val	Thr	Ser	Thr	Gly	Arg	Gly	Asn	Glu		
				485				490						495			
Ile	Gly	His	Ala	Ser	Thr	Cys	Thr	Gly	Leu	Gly	Glu	Glu	Ser	Glu	Gly		
			500					505					510				
Val	Leu	Ile	Cys	Glu	Ser	Ala	Glu	Gly	Asp	Ser	Gln	Ile	Gly	Thr	Val		
		515					520					525					
Val	Glu	His	Val	Glu	Ala	Glu	Ala	Gly	Ala	Ala	Ile	Met	Asn	Ala	Asn		
		530				535					540						
Glu	Asn	Asn	Val	Asp	Ser	Met	Ser	Gly	Thr	Glu	Lys	Gly	Ser	Lys	Asp		
		545			550					555				560			
Thr	Asp	Ile	Cys	Ser	Ser	Ala	Lys	Gly	Ile	Val	Glu	Ser	Ser	Val	Thr		
			565					570						575			
Ser	Ala	Val	Ser	Gly	Lys	Asp	Glu	Val	Thr	Pro	Val	Pro	Gly	Gly	Cys		
		580					585						590				
Glu	Gly	Pro	Met	Thr	Ser	Ala	Ala	Ser	Asp	Gln	Ser	Asp	Ser	Gln	Leu		
		595				600						605					
Glu	Lys	Val	Glu	Asp	Thr	Thr	Ile	Ser	Thr	Gly	Leu	Val	Gly	Gly	Ser		
		610				615					620						
Tyr	Asp	Val	Leu	Val	Ser	Gly	Glu	Val	Pro	Glu	Cys	Glu	Val	Ala	His		
		625			630					635				640			
Thr	Ser	Pro	Ser	Glu	Lys	Glu	Asp	Glu	Asp	Ile	Ile	Thr	Ser	Val	Glu		
			645					650						655			
Asn	Glu	Glu	Cys	Asp	Gly	Leu	Met	Ala	Thr	Thr	Ala	Ser	Gly	Asp	Ile		
		660					665						670				
Thr	Asn	Gln	Asn	Ser	Leu	Ala	Gly	Gly	Lys	Asn	Gln	Gly	Lys	Val	Leu		
		675					680					685					
Ile	Ile	Ser	Thr	Ser	Thr	Thr	Asn	Asp	Tyr	Thr	Pro	Gln	Val	Ser	Ala		
		690				695					700						
Ile	Thr	Asp	Val	Glu	Gly	Gly	Leu	Ser	Asp	Ala	Leu	Arg	Thr	Glu	Glu		
		705			710					715				720			
Asn	Met	Glu	Gly	Thr	Arg	Val	Thr	Thr	Glu	Glu	Phe	Glu	Ala	Pro	Met		
			725						730					735			
Pro	Ser	Ala	Val	Ser	Gly	Asp	Asp	Ser	Gln	Leu	Thr	Ala	Ser	Arg	Ser		
		740					745						750				
Glu	Glu	Lys	Asp	Glu	Cys	Ala	Met	Ile	Ser	Thr	Ser	Ile	Gly	Glu	Glu		
		755				760						765					
Phe	Glu	Leu	Pro	Ile	Ser	Ser	Ala	Thr	Thr	Ile	Lys	Cys	Ala	Glu	Ser		
		770				775					780						
Leu	Gln	Pro	Val	Ala	Ala	Ala	Val	Glu	Glu	Arg	Ala	Thr	Gly	Pro	Val		
		785			790					795				800			
Leu	Ile	Ser	Thr	Ala	Asp	Phe	Glu	Gly	Pro	Met	Pro	Ser	Ala	Pro	Pro		
			805					810						815			
Glu	Ala	Glu	Ser	Pro	Leu	Ala	Ser	Thr	Ser	Lys	Glu	Glu	Lys	Asp	Glu		
			820					825					830				
Cys	Ala	Leu	Ile	Ser	Thr	Ser	Ile	Ala	Glu	Glu	Cys	Glu	Ala	Ser	Val		
		835					840					845					
Ser	Gly	Val	Val	Val	Glu	Ser	Glu	Asn	Glu	Arg	Ala	Gly	Thr	Val	Met		
		850				855					860						

Glu Glu Lys Asp Gly Ser Gly Ile Ile Ser Thr Ser Ser Val Glu Asp
865 870 875 880
Cys Glu Gly Pro Val Ser Ser Ala Val Pro Gln Glu Glu Gly Asp Pro
885 890 895
Ser Val Thr Pro Ala Glu Glu Met Gly Asp Thr Ala Met Ile Ser Thr
900 905 910
Ser Thr Ser Glu Gly Cys Glu Ala Val Met Ile Gly Ala Val Leu Gln
915 920 925
Asp Glu Asp Arg Leu Thr Ile Thr Arg Val Glu Asp Leu Ser Asp Ala
930 935 940
Ala Ile Ile Ser Thr Ser Thr Ala Glu Cys Met Pro Ile Ser Ala Ser
945 950 955 960
Ile Asp Arg His Glu Glu Asn Gln Leu Thr Ala Asp Asn Pro Glu Gly
965 970 975
Asn Gly Asp Leu Ser Ala Thr Glu Val Ser Lys His Lys Val Pro Met
980 985 990
Pro Ser Leu Ile Ala Glu Asn Asn Cys Arg Cys Pro Gly Pro Val Arg
995 1000 1005
Gly Gly Lys Glu Pro Gly Pro Val Leu Ala Val Ser Thr Glu Glu Gly
1010 1015 1020
His Asn Gly Pro Ser Val His Lys Pro Ser Ala Gly Gln Gly His Pro
1025 1030 1035 1040
Ser Ala Val Cys Ala Glu Lys Glu Glu Lys His Gly Lys Glu Cys Pro
1045 1050 1055
Glu Ile Gly Pro Phe Ala Gly Arg Gly Gln Lys Glu Ser Thr Leu His
1060 1065 1070
Leu Ile Asn Ala Glu Glu Lys Asn Val Leu Leu Asn Ser Leu Gln Lys
1075 1080 1085
Glu Asp Lys Ser Pro Glu Thr Gly Thr Ala Gly Gly Ser Ser Thr Ala
1090 1095 1100
Ser Tyr Ser Ala Gly Arg Gly Leu Glu Gly Asn Ala Asn Ser Pro Ala
1105 1110 1115 1120
His Leu Arg Gly Pro Glu Gln Pro Ser Gly Gln Thr Ala Lys Asp Pro
1125 1130 1135
Ser Val Ser Ile Arg Tyr Leu Ala Ala Val Asn Thr Gly Ala Ile Lys
1140 1145 1150
Ala Asp Asp Met Pro Pro Val Gln Gly Thr Val Ala Glu His Ser Phe
1155 1160 1165
Leu Pro Ala Glu Gln Gln Gly Ser Glu Asp Asn Leu Lys Thr Ser Thr
1170 1175 1180
Thr Lys Cys Ile Thr Gly Gln Glu Ser Lys Ile Ala Pro Ser His Thr
1185 1190 1195 1200
Met Ile Pro Pro Ala Thr Tyr Ser Val Ala Leu Leu Ala Pro Lys Cys
1205 1210 1215
Glu Gln Asp Leu Thr Ile Lys Asn Asp Tyr Ser Gly Lys Trp Thr Asp
1220 1225 1230
Gln Ala Ser Ala Glu Lys Thr Gly Asp Asp Asn Ser Thr Arg Lys Ser
1235 1240 1245
Phe Pro Glu Glu Gly Asp Ile Met Val Thr Val Ser Ser Glu Glu Asn
1250 1255 1260
Val Cys Asp Ile Gly Asn Glu Glu Ser Pro Leu Asn Val Leu Gly Gly
1265 1270 1275 1280
Leu Lys Leu Lys Ala Asn Leu Lys Met Glu Ala Tyr Val Pro Ser Glu
1285 1290 1295
Glu Glu Lys Asn Gly Glu Ile Leu Ala Pro Pro Glu Ser Leu Cys Gly
1300 1305 1310
Gly Lys Pro Ser Gly Ile Ala Glu Leu Gln Arg Glu Pro Leu Leu Val
1315 1320 1325
Asn Glu Ser Leu Asn Val Glu Asn Ser Gly Phe Arg Thr Asn Glu Glu
1330 1335 1340
Ile His Ser Glu Ser Tyr Asn Lys Gly Glu Ile Ser Ser Gly Arg Lys
1345 1350 1355 1360
Asp Asn Ala Glu Ala Ile Ser Gly His Ser Val Glu Ala Asp Pro Lys
1365 1370 1375

Glu Val Glu Glu Glu Glu Arg His Met Pro Lys Arg Lys Arg Lys Gln
 1380 1385 1390
 His Tyr Leu Ser Ser Glu Asp Glu Pro Asp Asp Asn Pro Asp Val Leu
 1395 1400 1405
 Asp Ser Arg Ile Glu Thr Ala Gln Arg Gln Cys Pro Glu Thr Glu Pro
 1410 1415 1420
 His Asp Thr Lys Glu Glu Asn Ser Arg Asp Leu Glu Glu Leu Pro Lys
 1425 1430 1435 1440
 Thr Ser Ser Glu Ala Asn Ser Thr Thr Ser Arg Val Met Glu Glu Lys
 1445 1450 1455
 Asp Glu Tyr Ser Ser Ser Glu Thr Thr Gly Glu Lys Pro Glu Gln Asn
 1460 1465 1470
 Asp Asp Asp Thr Ile Lys Ser Gln Glu Glu Asp Gln Pro Ile Ile Ile
 1475 1480 1485
 Lys Arg Lys Arg Gly Arg Pro Arg Lys Tyr Pro Val Glu Thr Thr Leu
 1490 1495 1500
 Lys Met Lys Asp Asp Ser Lys Thr Asp Thr Gly Ile Val Thr Val Glu
 1505 1510 1515 1520
 Gln Ser Pro Ser Ser Ser Lys Leu Lys Val Met Gln Thr Asp Glu Ser
 1525 1530 1535
 Asn Lys Glu Thr Ala Asn Leu Gln Glu Arg Ser Ile Ser Asn Asp Asp
 1540 1545 1550
 Gly Glu Glu Lys Ile Val Thr Ser Val Arg Arg Arg Gly Arg Lys Pro
 1555 1560 1565
 Lys Arg Ser Leu Thr Val Ser Asp Asp Ala Glu Ser Ser Glu Pro Glu
 1570 1575 1580
 Arg Lys Arg Gln Lys Ser Val Ser Asp Pro Val Glu Asp Lys Lys Glu
 1585 1590 1595 1600
 Gln Glu Ser Asp Glu Glu Glu Glu Glu Glu Asp Glu Pro Ser
 1605 1610 1615
 Gly Ala Thr Thr Arg Ser Thr Thr Arg Ser Glu Ala Gln Arg Lys Gln
 1620 1625 1630
 His Ser Lys Pro Ser Ala Arg Ala Thr Ser Lys Leu Gly Ser Pro Asp
 1635 1640 1645
 Thr Val Ser Pro Arg Asn Arg Gln Lys Leu Ala Lys Glu Lys Leu Pro
 1650 1655 1660
 Thr Ser Glu Lys Val Ser Asn Ser Pro Pro Leu Gly Arg Ser Lys Thr
 1665 1670 1675 1680
 Gln Leu Ser Pro Ser Ile Lys Arg Lys Arg Glu Val Ser Pro Pro Gly
 1685 1690 1695
 Ala Arg Thr Arg Gly Gln Gln Arg Val Glu Glu Ala Pro Val Lys Lys
 1700 1705 1710
 Ala Lys Arg *
 1715

<210> 1948

<211> 355

<212> PRT

<213> Homo sapiens

<400> 1948

Met Met Ser Tyr Leu Lys Gln Pro Pro Tyr Gly Met Asn Gly Leu Gly
 1 5 10 15
 Leu Ala Gly Pro Ala Met Asp Leu Leu His Pro Ser Val Gly Tyr Pro
 20 25 30
 Ala Thr Pro Arg Lys Gln Arg Arg Glu Arg Thr Thr Phe Thr Arg Ser
 35 40 45
 Gln Leu Asp Val Leu Glu Ala Leu Phe Ala Lys Thr Arg Tyr Pro Asp
 50 55 60
 Ile Phe Met Arg Glu Glu Val Ala Leu Lys Ile Asn Leu Pro Glu Ser
 65 70 75 80


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Arg Val Gln Val Trp Phe Lys Asn Arg Arg Ala Lys Cys Arg Gln Gln
      85                      90                      95
Gln Gln Ser Gly Ser Gly Thr Lys Ser Arg Pro Ala Lys Lys Lys Ser
      100                    105                    110
Ser Pro Val Arg Glu Ser Ser Gly Ser Glu Ser Ser Gly Gln Phe Thr
      115                    120                    125
Pro Pro Ala Val Ser Ser Ser Ala Ser Ser Ser Ser Ser Ala Ser Ser
      130                    135                    140
Ser Ser Ala Asn Pro Ala Ala Ala Ala Ala Ala Gly Leu Gly Gly Asn
      145                    150                    155                    160
Pro Val Ala Ala Ala Ser Ser Leu Ser Thr Pro Ala Ala Ser Ser Ile
      165                    170                    175
Trp Ser Pro Ala Ser Ile Ser Pro Gly Ser Ala Pro Ala Ser Val Ser
      180                    185                    190
Val Pro Glu Pro Leu Ala Ala Pro Ser Asn Thr Ser Cys Met Gln Arg
      195                    200                    205
Ser Val Ala Ala Gly Ala Ala Thr Ala Ala Ala Ser Tyr Pro Met Ser
      210                    215                    220
Tyr Gly Gln Gly Gly Ser Tyr Gly Gln Gly Tyr Pro Thr Pro Ser Ser
      225                    230                    235                    240
Ser Tyr Phe Gly Gly Val Asp Cys Ser Ser Tyr Leu Ala Pro Met His
      245                    250                    255
Ser His His His Pro His Gln Leu Ser Pro Met Ala Pro Ser Ser Met
      260                    265                    270
Ala Gly His His His His His Pro His Ala His His Pro Leu Ser Gln
      275                    280                    285
Ser Ser Gly His His His His His His His His His His Gln Gly Tyr
      290                    295                    300
Gly Gly Ser Gly Leu Ala Phe Asn Ser Ala Asp Cys Leu Asp Tyr Lys
      305                    310                    315                    320
Glu Pro Gly Ala Ala Ala Ala Ser Ser Ala Trp Lys Leu Asn Phe Asn
      325                    330                    335
Ser Pro Val Cys Leu Asp Tyr Lys Asp Gln Ala Ser Trp Arg Phe Gln
      340                    345                    350
Val Leu *
      354

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<210> 1949
<211> 787
<212> PRT
<213> Homo sapiens

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```

<400> 1949
Met Pro Arg Glu Pro Arg Gly Tyr Arg Thr Arg Val Pro Ala Leu Arg
  1      5      10      15
Glu Leu Val Pro Ser Ser His Ala Gly Ser Gly Ala Ser Glu His Cys
      20      25      30
Gln Asn Asn Arg Gln Gly Ser Arg Gln His Arg Ala Ser Arg Asn Val
      35      40      45
Gln Ala Gly Gly Ala Leu Ala Pro Pro Arg His Leu Cys Gly Leu Cys
      50      55      60
Ser Arg Leu His Phe Leu Lys Pro Asp Leu Ser Val Arg Ala Ala Pro
      65      70      75      80
Ser Arg Ala Gly Ala Ser Val Met Ala Leu Arg Lys Glu Leu Leu Lys
      85      90      95
Ser Ile Trp Tyr Ala Phe Thr Ala Leu Asp Val Glu Lys Ser Gly Lys
      100     105     110
Val Ser Lys Ser Gln Pro Arg Val Leu Ser His Asn Leu Tyr Thr Val
      115     120     125
Leu His Ile Pro His Asp Pro Val Ala Leu Glu Glu His Phe Arg Asp
      130     135     140

```

Asp Asp Asp Gly Pro Val Ser Ser Gln Gly Tyr Met Pro Tyr Leu Asn
 145 150 155 160
 Lys Tyr Ile Leu Asp Lys Val Glu Glu Gly Ala Phe Val Lys Glu His
 165 170 175
 Phe Asp Glu Leu Cys Trp Thr Leu Thr Ala Lys Lys Asn Tyr Arg Ala
 180 185 190
 Asp Ser Asn Gly Asn Ser Met Leu Ser Asn Gln Asp Ala Phe Arg Leu
 195 200 205
 Trp Cys Leu Phe Asn Phe Leu Ser Glu Asp Lys Tyr Pro Leu Ile Met
 210 215 220
 Val Pro Asp Glu Gly Asp Glu Gly Asn His Pro Ser Pro Glu Pro Val
 225 230 235 240
 Pro Ser Thr Lys His Pro Asn Lys Thr Gln Asp Pro Pro Glu Ser Pro
 245 250 255
 Lys Gln Ser Val Pro Lys Ser Cys Trp Gly Arg Leu Trp Glu Pro Asp
 260 265 270
 Arg Ala Leu Pro Gly Val Gly Ala Gly Asn Thr Thr Cys Cys Ser Tyr
 275 280 285
 Gln Ala Phe Leu Leu Leu Leu Gln Val Glu Tyr Leu Leu Lys Lys Val
 290 295 300
 Leu Ser Ser Met Ser Leu Glu Val Ser Leu Gly Glu Leu Glu Glu Leu
 305 310 315 320
 Leu Ala Gln Glu Ala Gln Val Ala Gln Thr Thr Gly Gly Leu Ser Val
 325 330 335
 Trp Gln Phe Leu Glu Leu Phe Asn Ser Gly Cys Cys Leu Arg Gly Val
 340 345 350
 Gly Arg Asp Thr Leu Ser Met Ala Ile His Glu Val Tyr Gln Glu Leu
 355 360 365
 Ile Gln Asp Val Leu Lys Arg Gly Tyr Leu Trp Lys Arg Gly His Leu
 370 375 380
 Arg Arg Asn Trp Ala Glu Arg Trp Phe Gln Leu Gln Pro Ser Cys Leu
 385 390 395 400
 Cys Tyr Phe Gly Ser Glu Glu Cys Lys Glu Lys Arg Gly Ile Ile Pro
 405 410 415
 Leu Asp Ala His Cys Cys Val Glu Val Leu Pro Asp Arg Asp Gly Lys
 420 425 430
 Arg Cys Met Phe Cys Val Lys Thr Ala Thr Arg Thr Tyr Glu Met Ser
 435 440 445
 Ala Ser Asp Thr Arg Gln Arg Gln Glu Trp Thr Ala Ala Ile Gln Met
 450 455 460
 Ala Ile Arg Leu Gln Ala Glu Gly Lys Thr Ser Leu His Lys Asp Leu
 465 470 475 480
 Lys Gln Lys Arg Arg Glu Gln Arg Glu Gln Arg Glu Arg Arg Arg Ala
 485 490 495
 Ala Lys Glu Glu Glu Leu Leu Arg Leu Gln Gln Leu Gln Glu Glu Lys
 500 505 510
 Glu Arg Lys Leu Gln Glu Leu Glu Leu Leu Gln Glu Ala Gln Arg Gln
 515 520 525
 Ala Glu Arg Leu Leu Gln Glu Glu Glu Arg Arg Arg Ser Gln His
 530 535 540
 Arg Glu Leu Gln Gln Ala Leu Glu Gly Gln Leu Arg Glu Ala Glu Gln
 545 550 555 560
 Ala Arg Ala Ser Met Gln Ala Glu Met Glu Leu Lys Glu Glu Glu Ala
 565 570 575
 Ala Arg Gln Arg Gln Arg Ile Lys Glu Leu Glu Glu Met Gln Gln Arg
 580 585 590
 Leu Gln Glu Ala Leu Gln Leu Glu Val Lys Ala Arg Arg Asp Glu Glu
 595 600 605
 Ser Val Arg Ile Ala Gln Thr Arg Leu Leu Glu Glu Glu Glu Glu Lys
 610 615 620
 Leu Lys Gln Leu Met Gln Leu Lys Glu Glu Gln Glu Arg Tyr Ile Glu
 625 630 635 640
 Arg Ala Gln Gln Glu Lys Glu Glu Leu Gln Gln Glu Met Ala Gln Gln
 645 650 655

```

Ser Arg Ser Leu Gln Gln Ala Gln Gln Gln Leu Glu Glu Val Arg Gln
      660                      665                      670
Asn Arg Gln Arg Ala Asp Glu Asp Val Glu Ala Ala Gln Arg Lys Leu
      675                      680                      685
Arg Gln Ala Ser Thr Asn Val Lys His Trp Asn Val Gln Met Asn Arg
      690                      695                      700
Leu Met His Pro Ile Glu Pro Gly Asp Lys Arg Pro Val Thr Ser Ser
      705                      710                      715                      720
Ser Phe Ser Gly Phe Gln Pro Pro Leu Leu Ala His Arg Asp Ser Ser
      725                      730                      735
Leu Lys Arg Leu Thr Arg Trp Gly Ser Gln Gly Asn Arg Thr Pro Ser
      740                      745                      750
Pro Asn Ser Asn Glu Gln Gln Lys Ser Leu Asn Gly Gly Asp Glu Ala
      755                      760                      765
Pro Ala Pro Ala Ser Thr Pro Gln Glu Asp Lys Leu Asp Pro Ala Pro
      770                      775                      780
Glu Asn *
785 786

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<210> 1950
<211> 116
<212> PRT
<213> Homo sapiens

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```

<400> 1950
Met Leu Leu Cys Thr Gly Leu Val Val Gln Ala Gln Arg Gln Ala Ser
  1                      5                      10                      15
Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln Val Asp Leu Phe Lys Arg
      20                      25                      30
Arg Val Val Arg Arg Leu Ala Ser Leu Lys Thr Arg Arg Cys Arg Leu
      35                      40                      45
Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro Gly Ala Glu Thr Cys Ala
      50                      55                      60
Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln Trp Leu Arg Val Leu Pro
      65                      70                      75                      80
Cys Lys His Glu Phe His Arg Asp Cys Val Asp Pro Trp Leu Met Leu
      85                      90                      95
Gln Gln Thr Cys Pro Leu Cys Lys Phe Asn Val Leu Gly Asn Arg Tyr
      100                      105                      110
Ser Asp Asp *
      115

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<210> 1951
<211> 253
<212> PRT
<213> Homo sapiens

```

```

<400> 1951
Met Arg Pro Ser Gly Leu Asp Arg Val Leu Pro Gln Arg Val Gln Pro
  1                      5                      10                      15
Leu Leu Pro Leu Leu Leu Leu Gly Leu Gln Val Leu Leu Val Leu Val
      20                      25                      30
Glu Pro Ala Ala His Gly Thr Cys Leu Leu Arg Pro Gln Val Gln Gly
      35                      40                      45
Leu Val Leu Leu Ala Leu Val Glu Phe Pro Glu Val Phe Phe Leu Ser
      50                      55                      60
Leu Val Asn Asn Cys Glu Asn Thr Gly Asn Gly Phe Pro Asp Asp Ser
      65                      70                      75                      80

```

```

Asp Leu Arg Glu Leu Gly Gly Arg Thr Ala Cys His Phe Gly Asp Ala
      85                      90                      95
Gln Leu Gly Gln Leu His Leu Gln Val Val Gln Leu Phe Gln Gln Leu
      100                    105                    110
Leu Leu Leu Leu Pro Ser Glu Arg Ala Ala Ala Leu Ala Ala Cys Ala
      115                    120                    125
Ala Met Ala Lys Ile Lys Ala Arg Asp Leu Arg Gly Lys Lys Lys Glu
      130                    135                    140
Glu Leu Leu Lys Gln Leu Asp Asp Leu Lys Val Glu Leu Ser Gln Leu
      145                    150                    155
Arg Val Ala Lys Val Thr Gly Gly Ala Ala Ser Lys Leu Ser Lys Ile
      165                    170                    175
Arg Val Val Arg Lys Ser Ile Ala Arg Val Leu Thr Val Ile Asn Gln
      180                    185                    190
Thr Gln Lys Glu Asn Leu Arg Lys Phe Tyr Lys Gly Lys Lys Tyr Lys
      195                    200                    205
Pro Leu Asp Leu Arg Pro Lys Lys Thr Arg Ala Met Arg Arg Arg Leu
      210                    215                    220
Asn Lys His Glu Glu Asn Leu Lys Thr Lys Lys Gln Gln Arg Lys Glu
      225                    230                    235
Arg Leu Tyr Pro Leu Arg Lys Tyr Ala Val Lys Ala *
      245                    250                    252

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<210> 1952

<211> 259

<212> PRT

<213> Homo sapiens

<400> 1952

```

Met Pro Ser Leu Arg Ala Cys Phe Lys Ser Ile Phe Arg Ile His Thr
  1      5                      10                      15
Glu Thr Gly Asn Ile Trp Thr His Leu Leu Gly Cys Val Phe Phe Leu
      20                    25                    30
Cys Leu Gly Ile Phe Tyr Met Phe Arg Pro Asn Ile Ser Phe Val Ala
      35                    40                    45
Pro Leu Gln Glu Lys Val Val Phe Gly Leu Phe Phe Leu Gly Ala Ile
      50                    55                    60
Leu Cys Leu Ser Phe Ser Trp Leu Phe His Thr Val Tyr Cys His Ser
      65                    70                    75
Glu Gly Val Ser Arg Leu Phe Ser Lys Leu Asp Tyr Ser Gly Ile Ala
      85                    90                    95
Leu Leu Ile Met Gly Ser Phe Val Pro Trp Leu Tyr Tyr Ser Phe Tyr
      100                    105                    110
Cys Asn Pro Gln Pro Cys Phe Ile Tyr Leu Ile Val Ile Cys Val Leu
      115                    120                    125
Gly Ile Ala Ala Ile Ile Val Ser Gln Trp Asp Met Phe Ala Thr Pro
      130                    135                    140
Gln Tyr Arg Gly Val Arg Ala Gly Val Phe Leu Gly Leu Gly Leu Ser
      145                    150                    155
Gly Ile Ile Pro Thr Leu His Tyr Val Ile Ser Glu Gly Phe Leu Lys
      165                    170                    175
Ala Ala Thr Ile Gly Gln Ile Gly Trp Leu Met Leu Met Ala Ser Leu
      180                    185                    190
Tyr Ile Thr Gly Ala Ala Leu Tyr Ala Ala Arg Ile Pro Glu Arg Phe
      195                    200                    205
Phe Pro Gly Lys Cys Asp Ile Trp Phe His Ser His Gln Leu Phe His
      210                    215                    220
Ile Phe Val Val Ala Gly Ala Phe Val His Phe His Gly Val Ser Asn
      225                    230                    235
Leu Gln Glu Phe Arg Phe Met Ile Gly Gly Gly Cys Ser Glu Glu Asp
      245                    250                    255

```

Ala Leu *
258

<210> 1953
<211> 293
<212> PRT
<213> Homo sapiens

<400> 1953
Met Lys Ala Thr Val Leu Met Arg Gln Pro Gly Arg Val Gln Glu Ile
1 5 10 15
Val Gly Ala Leu Arg Lys Gly Gly Gly Asp Arg Leu Gln Val Ile Ser
20 25 30
Asp Phe Asp Met Thr Leu Ser Arg Phe Ala Tyr Asn Gly Lys Arg Cys
35 40 45
Pro Ser Ser Tyr Asn Ile Leu Asp Asn Ser Lys Ile Ile Ser Glu Glu
50 55 60
Cys Arg Lys Glu Leu Thr Ala Leu Leu His His Tyr Tyr Pro Ile Glu
65 70 75 80
Ile Asp Pro His Arg Thr Val Lys Glu Lys Leu Pro His Met Val Glu
85 90 95
Trp Trp Thr Lys Ala His Asn Leu Leu Cys Gln Gln Lys Ile Gln Lys
100 105 110
Phe Gln Ile Ala Gln Val Val Arg Glu Ser Asn Ala Met Leu Arg Glu
115 120 125
Gly Tyr Lys Thr Phe Phe Asn Thr Leu Tyr His Asn Asn Ile Pro Leu
130 135 140
Phe Ile Phe Ser Ala Gly Ile Gly Asp Ile Leu Glu Glu Ile Ile Arg
145 150 155 160
Gln Met Lys Val Phe His Pro Asn Ile His Ile Val Ser Asn Tyr Met
165 170 175
Asp Phe Asn Glu Asp Gly Phe Leu Gln Gly Phe Lys Gly Gln Leu Ile
180 185 190
His Thr Tyr Asn Lys Asn Ser Ser Ala Cys Glu Asn Ser Gly Tyr Phe
195 200 205
Gln Gln Leu Glu Gly Lys Thr Asn Val Ile Leu Leu Gly Asp Ser Ile
210 215 220
Gly Asp Leu Thr Met Ala Asp Gly Val Pro Gly Val Gln Asn Ile Leu
225 230 235 240
Lys Ile Gly Phe Leu Asn Asp Lys Val Glu Arg Arg Glu Arg Tyr
245 250 255
Met Asp Ser Tyr Asp Ile Val Leu Glu Lys Asp Glu Thr Leu Asp Val
260 265 270
Val Asn Gly Leu Leu Gln His Ile Leu Cys Gln Gly Val Gln Leu Glu
275 280 285
Met Gln Gly Pro *
290 292

<210> 1954
<211> 154
<212> PRT
<213> Homo sapiens

<400> 1954
Met Glu Glu Asp Asn Trp Arg Trp His Phe Tyr Asp Thr Val Lys Gly
1 5 10 15
Ser Asp Trp Leu Gly Asp Gln Asp Ala Ile His Tyr Met Thr Glu Gln
20 25 30

Ala Pro Ala Ala Val Val Glu Leu Glu Asn Tyr Gly Met Pro Phe Ser
 35 40 45
 Arg Thr Glu Asp Gly Lys Ile Tyr Gln Arg Ala Phe Gly Gly Gln Ser
 50 55 60
 Leu Lys Phe Gly Lys Gly Gly Gln Ala His Arg Cys Cys Cys Val Ala
 65 70 75 80
 Asp Arg Thr Gly His Ser Leu Leu His Thr Leu Tyr Gly Arg Ser Leu
 85 90 95
 Arg Tyr Asp Thr Ser Tyr Phe Val Glu Tyr Phe Ala Leu Asp Leu Leu
 100 105 110
 Met Glu Asn Gly Glu Cys Arg Gly Val Ile Ala Leu Cys Ile Glu Val
 115 120 125
 Asp Ala Ala Ala Asn Ser Asp Pro Arg Glu Ile Ser Phe Phe Gly Phe
 130 135 140
 Gly Gly Val Ser Ser Ser Ser Asn Arg *
 145 150 153

<210> 1955
 <211> 1159
 <212> PRT
 <213> Homo sapiens

<400> 1955
 Met Glu Gly Leu Leu Gly Ala Trp Glu Gly Ala Pro Arg Gln Pro Pro
 1 5 10 15
 Arg His Leu Gln Ala Asn Ser Thr Val Thr Ser Phe Gln Arg Tyr His
 20 25 30
 Glu Ala Leu Asn Thr Pro Phe Glu Leu Asn Leu Ser Gly Glu Pro Gly
 35 40 45
 Asn Gln Gly Leu Arg Arg Val Val Ile Asp Gly Ser Ser Val Ala Met
 50 55 60
 Val His Gly Leu Gln His Phe Phe Ser Cys Arg Gly Ile Ala Met Ala
 65 70 75 80
 Val Gln Phe Phe Trp Asn Arg Gly His Arg Glu Val Thr Val Phe Val
 85 90 95
 Pro Thr Trp Gln Leu Lys Lys Asn Arg Arg Val Arg Glu Ser His Phe
 100 105 110
 Leu Thr Lys Leu His Ser Leu Lys Met Leu Ser Ile Thr Pro Ser Gln
 115 120 125
 Leu Glu Asn Gly Lys Lys Ile Thr Thr Tyr Asp Tyr Arg Phe Met Val
 130 135 140
 Lys Leu Ala Glu Glu Thr Asp Gly Ile Ile Val Thr Asn Glu Gln Ile
 145 150 155 160
 His Ile Leu Met Asn Ser Ser Lys Lys Leu Met Val Lys Asp Arg Leu
 165 170 175
 Leu Pro Phe Thr Phe Ala Gly Asn Leu Phe Met Val Pro Asp Asp Pro
 180 185 190
 Leu Gly Arg Asp Gly Pro Thr Leu Asp Glu Phe Leu Lys Lys Pro Asn
 195 200 205
 Arg Leu Asp Thr Asp Ile Gly Asn Phe Leu Lys Val Trp Lys Thr Leu
 210 215 220
 Pro Pro Ser Ser Ala Ser Val Thr Glu Leu Ser Asp Asp Ala Asp Ser
 225 230 235 240
 Gly Pro Leu Glu Ser Leu Pro Asn Met Glu Glu Val Arg Glu Glu Lys
 245 250 255
 Glu Glu Arg Gln Asp Glu Glu Gln Arg Gln Gly Gln Gly Thr Gln Lys
 260 265 270
 Ala Ala Glu Glu Asp Asp Leu Asp Ser Ser Leu Ala Ser Val Phe Arg
 275 280 285
 Val Glu Cys Pro Ser Leu Ser Glu Glu Ile Leu Arg Cys Leu Ser Leu
 290 295 300

His Asp Pro Pro Asp Gly Ala Leu Asp Ile Asp Leu Leu Pro Gly Ala
 305 310 315 320
 Ala Ser Pro Tyr Leu Gly Ile Pro Trp Asp Gly Lys Ala Pro Cys Gln
 325 330 335
 Gln Val Leu Ala His Leu Ala Gln Leu Thr Ile Pro Ser Asn Phe Thr
 340 345 350
 Ala Leu Ser Phe Phe Met Gly Phe Met Asp Ser His Arg Asp Ala Ile
 355 360 365
 Pro Asp Tyr Glu Ala Leu Val Gly Pro Leu His Ser Leu Leu Lys Gln
 370 375 380
 Lys Pro Asp Trp Gln Trp Asp Gln Glu His Glu Glu Ala Phe Leu Ala
 385 390 395 400
 Leu Lys Arg Ala Leu Val Ser Ala Leu Cys Leu Met Ala Pro Asn Ser
 405 410 415
 Gln Leu Pro Phe Arg Leu Glu Val Thr Val Ser His Val Ala Leu Thr
 420 425 430
 Ala Ile Leu His Gln Glu His Ser Gly Arg Lys His Pro Ile Ala Tyr
 435 440 445
 Thr Ser Lys Pro Leu Leu Pro Asp Glu Glu Ser Gln Gly Pro Gln Ser
 450 455 460
 Gly Gly Asp Ser Pro Tyr Ala Val Ala Trp Ala Leu Lys His Phe Ser
 465 470 475 480
 Arg Cys Ile Gly Asp Thr Pro Val Val Leu Asp Leu Ser Tyr Ala Ser
 485 490 495
 Arg Thr Thr Ala Asp Pro Glu Val Arg Glu Gly Arg Arg Val Ser Lys
 500 505 510
 Ala Trp Leu Ile Arg Trp Ser Leu Leu Val Gln Asp Lys Gly Lys Arg
 515 520 525
 Ala Leu Glu Leu Ala Leu Leu Gln Gly Leu Leu Gly Glu Asn Arg Leu
 530 535 540
 Leu Thr Pro Ala Ala Ser Met Pro Arg Phe Phe Gln Val Leu Pro Pro
 545 550 555 560
 Phe Ser Asp Leu Ser Thr Phe Val Cys Ile His Met Ser Gly Tyr Cys
 565 570 575
 Phe Tyr Arg Glu Asp Glu Trp Cys Ala Gly Phe Gly Leu Tyr Val Leu
 580 585 590
 Ser Pro Thr Ser Pro Pro Val Ser Leu Ser Phe Ser Cys Ser Pro Tyr
 595 600 605
 Thr Pro Thr Tyr Ala His Leu Ala Ala Val Ala Cys Gly Leu Glu Arg
 610 615 620
 Phe Gly Gln Ser Pro Leu Pro Val Val Phe Leu Thr His Cys Asn Trp
 625 630 635 640
 Ile Phe Ser Leu Leu Trp Glu Leu Leu Pro Leu Trp Arg Ala Arg Gly
 645 650 655
 Phe Leu Ser Ser Asp Gly Ala Pro Leu Pro His Pro Ser Leu Leu Ser
 660 665 670
 Tyr Ile Ile Ser Leu Thr Ser Gly Leu Ser Ser Leu Pro Phe Ile Tyr
 675 680 685
 Arg Thr Ser Tyr Arg Gly Ser Leu Phe Ala Val Thr Val Asp Thr Leu
 690 695 700
 Ala Lys Gln Gly Ala Gln Gly Gly Gly Gln Trp Trp Ser Leu Pro Lys
 705 710 715 720
 Asp Val Pro Ala Pro Thr Val Ser Pro His Ala Met Gly Lys Arg Pro
 725 730 735
 Asn Leu Leu Ala Leu Gln Leu Ser Asp Ser Thr Leu Ala Asp Ile Ile
 740 745 750
 Ala Arg Leu Gln Ala Gly Gln Lys Leu Ser Gly Ser Ser Pro Phe Ser
 755 760 765
 Ser Ala Phe Asn Ser Leu Ser Leu Asp Lys Glu Ser Gly Leu Leu Met
 770 775 780
 Phe Lys Gly Asp Lys Lys Pro Arg Val Trp Val Val Pro Thr Gln Leu
 785 790 795 800
 Arg Arg Asp Leu Ile Phe Ser Val His Asp Ile Pro Leu Gly Ala His
 805 810 815

Gln Arg Pro Glu Glu Thr Tyr Lys Lys Leu Arg Leu Leu Gly Trp Trp
 820 825 830
 Pro Gly Met Gln Glu His Val Lys Asp Tyr Cys Arg Ser Cys Leu Phe
 835 840 845
 Cys Ile Pro Arg Asn Leu Ile Gly Ser Glu Leu Lys Val Ile Glu Ser
 850 855 860
 Pro Trp Pro Leu Arg Ser Thr Ala Pro Trp Ser Asn Leu Gln Ile Glu
 865 870 875 880
 Val Val Gly Pro Val Thr Ile Ser Glu Glu Gly His Lys His Val Leu
 885 890 895
 Ile Val Ala Asp Pro Asn Thr Arg Trp Val Glu Ala Phe Pro Leu Lys
 900 905 910
 Pro Tyr Thr His Thr Ala Val Ala Gln Val Leu Leu Gln His Val Phe
 915 920 925
 Ala Arg Trp Gly Val Pro Val Arg Leu Glu Ala Ala Gln Gly Pro Gln
 930 935 940
 Phe Ala Arg His Val Leu Val Ser Cys Gly Leu Ala Leu Gly Ala Gln
 945 950 955 960
 Val Ala Ser Leu Ser Arg Asp Leu Gln Phe Pro Cys Leu Thr Ser Ser
 965 970 975
 Gly Ala Tyr Trp Glu Phe Lys Arg Ala Leu Lys Glu Phe Ile Phe Leu
 980 985 990
 His Gly Lys Lys Trp Ala Ala Ser Leu Pro Leu Leu His Leu Ala Phe
 995 1000 1005
 Arg Ala Ser Ser Thr Asp Ala Thr Pro Phe Lys Val Leu Thr Gly Gly
 1010 1015 1020
 Glu Ser Arg Leu Thr Glu Pro Leu Trp Trp Glu Met Ser Ser Ala Asn
 1025 1030 1035 1040
 Ile Glu Gly Leu Lys Met Asp Val Phe Leu Leu Gln Leu Val Gly Glu
 1045 1050 1055
 Leu Leu Glu Leu His Trp Arg Val Ala Asp Lys Ala Ser Glu Lys Ala
 1060 1065 1070
 Glu Asn Arg Arg Phe Lys Arg Glu Ser Gln Glu Lys Glu Trp Asn Val
 1075 1080 1085
 Gly Asp Gln Val Leu Leu Leu Ser Leu Pro Arg Asn Gly Ser Ser Ala
 1090 1095 1100
 Lys Trp Val Gly Pro Phe Tyr Ile Gly Asp Arg Leu Ser Leu Ser Leu
 1105 1110 1115 1120
 Tyr Arg Ile Trp Gly Phe Pro Thr Pro Glu Lys Leu Gly Cys Ile Tyr
 1125 1130 1135
 Pro Ser Ser Leu Met Lys Ala Phe Ala Lys Ser Gly Thr Pro Leu Ser
 1140 1145 1150
 Phe Lys Val Leu Glu Gln *
 1155 1158

<210> 1956

<211> 608

<212> PRT

<213> Homo sapiens

<400> 1956

Met Gly Ser Val Thr Val Arg Tyr Phe Cys Tyr Gly Cys Leu Phe Thr
 1 5 10 15
 Ser Ala Thr Trp Thr Val Leu Leu Phe Val Tyr Phe Asn Phe Ser Glu
 20 25 30
 Val Thr Gln Pro Leu Lys Asn Val Pro Val Lys Gly Ser Gly Pro His
 35 40 45
 Gly Pro Ser Pro Lys Lys Phe Tyr Pro Arg Phe Thr Arg Gly Pro Ser
 50 55 60
 Arg Val Leu Glu Pro Gln Phe Lys Ala Asn Lys Ile Asp Asp Val Ile
 65 70 75 80

Asp	Ser	Arg	Val	Glu	Asp	Pro	Glu	Glu	Gly	His	Leu	Lys	Phe	Ser	Ser		
				85					90					95			
Glu	Leu	Gly	Met	Ile	Phe	Asn	Glu	Arg	Asp	Gln	Glu	Leu	Arg	Asp	Leu		
			100					105					110				
Gly	Tyr	Gln	Lys	His	Ala	Phe	Asn	Met	Leu	Ile	Ser	Asp	Arg	Leu	Gly		
		115					120					125					
Tyr	His	Arg	Asp	Val	Pro	Asp	Thr	Arg	Asn	Ala	Ala	Cys	Lys	Glu	Lys		
		130				135					140						
Phe	Tyr	Pro	Pro	Asp	Leu	Pro	Ala	Ala	Ser	Val	Val	Ile	Cys	Phe	Tyr		
145					150					155				160			
Asn	Glu	Ala	Phe	Ser	Ala	Leu	Leu	Arg	Thr	Val	His	Ser	Val	Ile	Asp		
			165					170						175			
Arg	Thr	Pro	Ala	His	Leu	Leu	His	Glu	Ile	Ile	Leu	Val	Asp	Asp	Asp		
		180						185					190				
Ser	Asp	Phe	Asp	Asp	Leu	Lys	Gly	Glu	Leu	Asp	Glu	Tyr	Val	Gln	Lys		
		195				200					205						
Tyr	Leu	Pro	Gly	Lys	Ile	Lys	Val	Ile	Arg	Asn	Thr	Lys	Arg	Glu	Gly		
210					215					220							
Leu	Ile	Arg	Gly	Arg	Met	Ile	Gly	Ala	Ala	His	Ala	Thr	Gly	Glu	Val		
225					230					235				240			
Leu	Val	Phe	Leu	Asp	Ser	His	Cys	Glu	Val	Asn	Val	Met	Trp	Leu	Gln		
			245					250						255			
Pro	Leu	Leu	Ala	Ala	Ile	Arg	Glu	Asp	Arg	His	Thr	Val	Val	Cys	Pro		
		260					265						270				
Val	Ile	Asp	Ile	Ile	Ser	Ala	Asp	Thr	Leu	Ala	Tyr	Ser	Ser	Ser	Pro		
		275				280					285						
Val	Val	Arg	Gly	Gly	Phe	Asn	Trp	Gly	Leu	His	Phe	Lys	Trp	Asp	Leu		
290					295					300							
Val	Pro	Leu	Ser	Glu	Leu	Gly	Arg	Ala	Glu	Gly	Ala	Thr	Ala	Pro	Ile		
305					310				315					320			
Lys	Ser	Pro	Thr	Met	Ala	Gly	Gly	Leu	Phe	Ala	Met	Asn	Arg	Gln	Tyr		
			325					330						335			
Phe	His	Glu	Leu	Gly	Gln	Tyr	Asp	Ser	Gly	Met	Asp	Ile	Trp	Gly	Gly		
		340					345						350				
Glu	Asn	Leu	Glu	Ile	Ser	Phe	Arg	Ile	Trp	Met	Cys	Gly	Gly	Lys	Leu		
		355				360					365						
Phe	Ile	Ile	Pro	Cys	Ser	Arg	Val	Gly	His	Ile	Phe	Arg	Lys	Arg	Arg		
370					375					380							
Pro	Tyr	Gly	Ser	Pro	Glu	Gly	Gln	Asp	Thr	Met	Thr	His	Asn	Ser	Leu		
385				390				395						400			
Arg	Leu	Ala	His	Val	Trp	Leu	Asp	Glu	Tyr	Lys	Glu	Gln	Tyr	Phe	Ser		
			405					410						415			
Leu	Arg	Pro	Asp	Leu	Lys	Thr	Lys	Ser	Tyr	Gly	Asn	Ile	Ser	Glu	Arg		
		420					425						430				
Val	Glu	Leu	Arg	Lys	Lys	Leu	Gly	Cys	Lys	Ser	Phe	Lys	Trp	Tyr	Leu		
		435				440					445						
Asp	Asn	Val	Tyr	Pro	Glu	Met	Gln	Ile	Ser	Gly	Ser	His	Ala	Lys	Pro		
		450			455					460							
Gln	Gln	Pro	Ile	Phe	Val	Asn	Arg	Gly	Pro	Lys	Arg	Pro	Lys	Val	Leu		
465					470				475					480			
Gln	Arg	Gly	Arg	Leu	Tyr	His	Leu	Gln	Thr	Asn	Lys	Cys	Leu	Val	Ala		
			485					490						495			
Gln	Gly	Arg	Pro	Ser	Gln	Lys	Gly	Gly	Leu	Val	Val	Leu	Lys	Ala	Cys		
		500					505						510				
Asp	Tyr	Ser	Asp	Pro	Asn	Gln	Ile	Trp	Ile	Tyr	Asn	Glu	Glu	His	Glu		
		515				520						525					
Leu	Val	Leu	Asn	Ser	Leu	Leu	Cys	Leu	Asp	Met	Ser	Glu	Thr	Arg	Ser		
		530				535					540						
Ser	Asp	Pro	Pro	Arg	Leu	Met	Lys	Cys	His	Gly	Ser	Gly	Gly	Ser	Gln		
545					550					555				560			
Gln	Trp	Thr	Phe	Gly	Lys	Asn	Asn	Arg	Leu	Tyr	Gln	Val	Ser	Val	Gly		
			565					570						575			
Gln	Cys	Leu	Arg	Ala	Val	Asp	Pro	Leu	Gly	Gln	Lys	Gly	Ser	Val	Ala		
			580					585						590			

Met Ala Ile Cys Asp Gly Ser Ser Ser Gln Gln Trp His Leu Glu Gly
 595 600 605 608

<210> 1957
 <211> 967
 <212> PRT
 <213> Homo sapiens

<400> 1957
 Met Phe Leu Asn Phe Gly Gln Cys Gly Pro Pro Ala Ser Leu Cys Gln
 1 5 10 15
 Ser Ile Ser Arg Pro Val Pro Val Arg Phe His Asn Tyr Gly Asp Tyr
 20 25 30
 Phe Asn Val Phe Phe Pro Leu Met Val Leu Asn Thr Phe Glu Thr Val
 35 40 45
 Ala Gln Glu Trp Leu Asn Ser Pro Asn Arg Glu Asn Phe Tyr Gln Leu
 50 55 60
 Gln Val Arg Lys Phe Pro Ala Asp Tyr Ile Lys Tyr Trp Glu Phe Ala
 65 70 75 80
 Val Tyr Leu Glu Glu Cys Glu Leu Ala Lys Gln Leu Tyr Pro Lys Glu
 85 90 95
 Asn Asp Leu Val Phe Leu Ala Pro Glu Arg Ile Asn Glu Glu Lys Lys
 100 105 110
 Asp Thr Glu Arg Asn Asp Ile Gln Asp Leu His Glu Tyr His Ser Gly
 115 120 125
 Tyr Val His Lys Phe Arg Arg Thr Ser Val Met Arg Asn Gly Lys Thr
 130 135 140
 Glu Cys Tyr Leu Ser Ile Gln Thr Gln Glu Asn Phe Pro Ala Asn Leu
 145 150 155 160
 Asn Glu Leu Val Asn Cys Ile Val Ile Ser Ser Leu Val Thr Thr Gln
 165 170 175
 Arg Lys Leu Lys Ala Met Ser Leu Leu Gly Ser Arg Asn Gln Leu Ala
 180 185 190
 Arg Ala Val Leu Asn Pro Asn Pro Met Asp Phe Cys Thr Lys Asp Leu
 195 200 205
 Leu Thr Thr Thr Ser Glu Arg Ile Ile Ala Tyr Leu Arg Asp Phe Asn
 210 215 220
 Glu Asp Gln Lys Lys Ala Ile Glu Thr Ala Tyr Ala Met Val Lys His
 225 230 235 240
 Ser Pro Ser Val Ala Lys Ile Cys Leu Ile His Gly Pro Pro Gly Thr
 245 250 255
 Gly Lys Ser Lys Thr Ile Val Gly Leu Leu Tyr Arg Leu Leu Thr Glu
 260 265 270
 Asn Gln Arg Lys Gly His Ser Asp Glu Asn Ser Asn Ala Lys Ile Lys
 275 280 285
 Gln Asn Arg Val Leu Val Cys Ala Pro Ser Asn Ala Val Asp Glu
 290 295 300
 Leu Met Lys Lys Ile Ile Leu Glu Phe Lys Glu Lys Cys Lys Asp Lys
 305 310 315 320
 Lys Asn Pro Leu Gly Asn Cys Gly Asp Ile Asn Leu Val Arg Leu Gly
 325 330 335
 Pro Glu Lys Ser Ile Asn Ser Glu Val Leu Lys Phe Ser Leu Asp Ser
 340 345 350
 Gln Val Asn His Arg Met Lys Lys Glu Leu Pro Ser His Val Gln Ala
 355 360 365
 Met His Lys Arg Lys Glu Phe Leu Asp Tyr Gln Leu Asp Glu Leu Ser
 370 375 380
 Arg Gln Arg Ala Leu Cys Arg Gly Gly Arg Glu Ile Gln Arg Gln Glu
 385 390 395 400

Leu Asp Glu Asn Ile Ser Lys Val Ser Lys Glu Arg Gln Glu Leu Ala
 405 410 415
 Ser Lys Ile Lys Glu Val Gln Gly Arg Pro Gln Lys Thr Gln Ser Ile
 420 425 430
 Ile Ile Leu Glu Ser His Ile Ile Cys Cys Thr Leu Ser Thr Ser Gly
 435 440 445
 Gly Leu Leu Leu Glu Ser Ala Phe Arg Gly Gln Gly Gly Val Pro Phe
 450 455 460
 Ser Cys Val Ile Val Asp Glu Ala Gly Gln Ser Cys Glu Ile Glu Thr
 465 470 475 480
 Leu Thr Pro Leu Ile His Arg Cys Asn Lys Leu Ile Leu Val Gly Asp
 485 490 495
 Pro Lys Gln Leu Pro Pro Thr Val Ile Ser Met Lys Ala Gln Glu Tyr
 500 505 510
 Gly Tyr Asp Gln Ser Met Met Ala Arg Phe Cys Arg Leu Leu Glu Glu
 515 520 525
 Asn Val Glu His Asn Met Ile Ser Arg Leu Pro Ile Leu Gln Leu Thr
 530 535 540
 Val Gln Tyr Arg Met His Pro Asp Ile Cys Leu Phe Pro Ser Asn Tyr
 545 550 555 560
 Val Tyr Asn Arg Asn Leu Lys Thr Asn Arg Gln Thr Glu Ala Ile Arg
 565 570 575
 Cys Ser Ser Asp Trp Pro Phe Gln Pro Tyr Leu Val Phe Asp Val Gly
 580 585 590
 Asp Gly Ser Glu Arg Arg Asp Asn Asp Ser Tyr Ile Asn Val Gln Glu
 595 600 605
 Ile Lys Leu Val Met Glu Ile Ile Lys Leu Ile Lys Asp Lys Arg Lys
 610 615 620
 Asp Val Ser Phe Arg Asn Ile Gly Ile Ile Thr His Tyr Lys Ala Gln
 625 630 635 640
 Lys Thr Met Ile Gln Lys Asp Leu Asp Lys Glu Phe Asp Arg Lys Gly
 645 650 655
 Pro Ala Glu Val Asp Thr Val Asp Ala Phe Gln Gly Arg Gln Lys Asp
 660 665 670
 Cys Val Ile Val Thr Cys Val Arg Ala Asn Ser Ile Gln Gly Ser Ile
 675 680 685
 Gly Phe Leu Ala Ser Leu Gln Arg Leu Asn Val Thr Ile Thr Arg Ala
 690 695 700
 Lys Tyr Ser Leu Phe Ile Leu Gly His Leu Arg Thr Leu Met Glu Asn
 705 710 715 720
 Gln His Trp Asn Gln Leu Ile Gln Asp Ala Gln Lys Arg Gly Ala Ile
 725 730 735
 Ile Lys Thr Cys Asp Lys Asn Tyr Arg His Asp Ala Val Lys Ile Leu
 740 745 750
 Lys Leu Lys Pro Val Leu Gln Arg Ser Leu Thr His Pro Pro Thr Ile
 755 760 765
 Ala Pro Glu Gly Ser Arg Pro Gln Gly Gly Leu Pro Ser Ser Lys Leu
 770 775 780
 Asp Ser Gly Phe Ala Lys Thr Ser Val Ala Ala Ser Leu Tyr His Thr
 785 790 795 800
 Pro Ser Asp Ser Lys Glu Ile Thr Leu Thr Val Thr Ser Lys Asp Pro
 805 810 815
 Glu Arg Pro Pro Val His Asp Gln Leu Gln Asp Pro Arg Leu Leu Lys
 820 825 830
 Arg Met Gly Ile Glu Val Lys Gly Gly Ile Phe Leu Trp Asp Pro Gln
 835 840 845
 Pro Ser Pro Gln His Pro Gly Ala Thr Pro Pro Thr Gly Glu Pro
 850 855 860
 Gly Phe Pro Val Val His Gln Asp Leu Ser His Ile Gln Gln Pro Ala
 865 870 875 880
 Ala Val Val Ala Ala Leu Ser Ser His Lys Pro Pro Val Arg Gly Glu
 885 890 895
 Pro Pro Ala Ala Ser Pro Glu Ala Ser Thr Cys Gln Ser Lys Cys Asp
 900 905 910

Asp Pro Glu Glu Glu Leu Cys His Arg Arg Glu Ala Arg Ala Phe Ser
 915 920 925
 Glu Gly Glu Gln Glu Lys Cys Gly Ser Glu Thr His His Thr Arg Arg
 930 935 940
 Asn Ser Arg Trp Asp Lys Arg Thr Leu Glu Gln Glu Asp Ser Ser Ser
 945 950 955 960
 Lys Lys Arg Lys Leu Leu *
 965 966

<210> 1958
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 1958
 Met Pro Arg Glu Asp Arg Ala Thr Trp Lys Ser Asn Tyr Phe Leu Lys
 1 5 10 15
 Ile Ile Gln Leu Leu Asp Asp Tyr Pro Lys Cys Phe Ile Val Gly Ala
 20 25 30
 Asp Asn Val Gly Ser Lys Gln Met Gln Gln Ile Arg Met Ser Leu Arg
 35 40 45
 Gly Lys Ala Val Val Leu Met Gly Lys Asn Thr Met Met Arg Lys Ala
 50 55 60
 Ile Arg Gly His Leu Glu Asn Asn Pro Ala Leu Glu Lys Leu Leu Pro
 65 70 75 80
 His Ile Arg Gly Asn Val Gly Phe Val Phe Thr Lys Glu Asp Leu Thr
 85 90 95
 Glu Ile Arg Asp Met Leu Leu Ala Asn Lys Val Pro Ala Ala Ala Arg
 100 105 110
 Ala Gly Ala Ile Ala Pro Cys Glu Val Thr Val Pro Ala Gln Asn Thr
 115 120 125
 Gly Leu Gly Pro Glu Lys Thr Ser Phe Phe Gln Ala Leu Gly Ile Thr
 130 135 140
 Thr Lys Ile Ser Arg Gly Thr Ile Glu Ile Leu Gly Val Arg Asn Val
 145 150 155 160
 Ala Ser Val Cys Leu Gln Ile Gly Tyr Pro Thr Val Ala Ser Val Pro
 165 170 175
 His Ser Ile Ile Asn Gly Tyr Lys Arg Val Leu Ala Leu Ser Val Glu
 180 185 190
 Thr Asp Tyr Thr Phe Pro Leu Ala Glu Lys Val Lys Ala Phe Leu Ala
 195 200 205
 Asp Pro Ser Ala Phe Val Ala Ala Ala Pro Val Ala Ala Ala Thr Thr
 210 215 220
 Ala Ala Pro Ala Ala Ala Ala Pro Ala Lys Val Glu Ala Lys Glu
 225 230 235 240
 Glu Ser Glu Glu Ser Asp Glu Asp Met Gly Phe Gly Leu Phe Asp *
 245 250 255

<210> 1959
 <211> 231
 <212> PRT
 <213> Homo sapiens

<400> 1959
 Met Asn Glu Pro Leu Asp Tyr Leu Ala Asn Ala Ser Asp Phe Pro Asp
 1 5 10 15
 Tyr Ala Ala Ala Phe Gly Asn Cys Thr Asp Glu Asn Ile Pro Leu Lys
 20 25 30

Met His Tyr Leu Pro Val Ile Tyr Gly Ile Ile Phe Leu Val Gly Phe
 35 40 45
 Pro Gly Asn Ala Val Val Ile Ser Thr Tyr Ile Phe Lys Met Arg Pro
 50 55 60
 Trp Lys Ser Ser Thr Ile Ile Met Leu Asn Leu Ala Cys Thr Asp Leu
 65 70 75 80
 Leu Tyr Leu Thr Ser Leu Pro Phe Leu Ile His Tyr Tyr Ala Ser Gly
 85 90 95
 Glu Asn Trp Ile Phe Gly Asp Phe Met Cys Lys Phe Ile Arg Phe Ser
 100 105 110
 Phe His Phe Asn Leu Tyr Ser Ser Ile Leu Phe Leu Thr Cys Phe Ser
 115 120 125
 Ile Phe Arg Tyr Cys Val Ile Ile His Pro Met Ser Cys Phe Ser Ile
 130 135 140
 His Lys Thr Arg Cys Ala Val Val Ala Cys Ala Val Val Trp Ile Ile
 145 150 155 160
 Ser Leu Val Ala Val Ile Pro Met Thr Phe Leu Ile Thr Ser Thr Asn
 165 170 175
 Arg Thr Asn Arg Ser Ala Cys Leu Asp Leu Thr Ser Ser Asp Glu Leu
 180 185 190
 Asn Thr Ile Lys Trp Tyr Asn Leu Ile Leu Thr Ala Thr Thr Leu Pro
 195 200 205
 Pro Leu Gly Asp Ser Asp Thr Leu Leu Tyr His Asp Tyr Pro His Ser
 210 215 220
 Asp Pro Trp Thr Ala Asn *
 225 230

<210> 1960

<211> 475

<212> PRT

<213> Homo sapiens

<400> 1960

Met Arg Leu Ser Lys Thr Leu Val Asp Met Asp Met Ala Asp Tyr Ser
 1 5 10 15
 Ala Ala Leu Asp Pro Ala Tyr Thr Thr Leu Glu Phe Glu Asn Val Gln
 20 25 30
 Val Leu Thr Met Gly Asn Asp Thr Ser Pro Ser Glu Gly Thr Asn Leu
 35 40 45
 Asn Ala Pro Asn Ser Leu Gly Val Ser Ala Leu Cys Ala Ile Cys Gly
 50 55 60
 Asp Arg Ala Thr Gly Lys His Tyr Gly Ala Ser Ser Cys Asp Gly Cys
 65 70 75 80
 Lys Gly Phe Phe Arg Arg Ser Val Arg Lys Asn His Met Tyr Ser Cys
 85 90 95
 Arg Phe Ser Arg Gln Cys Val Val Asp Lys Asp Lys Arg Asn Gln Cys
 100 105 110
 Arg Tyr Cys Arg Leu Lys Lys Cys Phe Arg Ala Gly Met Lys Lys Glu
 115 120 125
 Ala Val Gln Asn Glu Arg Asp Arg Ile Ser Thr Arg Arg Ser Ser Tyr
 130 135 140
 Glu Asp Ser Ser Leu Pro Ser Ile Asn Ala Leu Leu Gln Ala Glu Val
 145 150 155 160
 Leu Ser Arg Gln Ile Thr Ser Pro Val Ser Gly Ile Asn Gly Asp Ile
 165 170 175
 Arg Ala Lys Lys Ile Ala Ser Ile Ala Asp Val Cys Glu Ser Met Lys
 180 185 190
 Glu Gln Leu Leu Val Leu Val Glu Trp Ala Lys Tyr Ile Pro Ala Phe
 195 200 205
 Cys Glu Leu Pro Leu Asp Asp Gln Val Ala Leu Leu Arg Ala His Ala
 210 215 220

Gly Glu His Leu Leu Leu Gly Ala Thr Lys Arg Ser Met Val Phe Lys
 225 230 235 240
 Asp Val Leu Leu Leu Gly Asn Asp Tyr Ile Val Pro Arg His Cys Pro
 245 250 255
 Glu Leu Ala Glu Met Ser Arg Val Ser Ile Arg Ile Leu Asp Glu Leu
 260 265 270
 Val Leu Pro Phe Gln Glu Leu His Ile Asp Asp Asn Glu Tyr Ala Tyr
 275 280 285
 Leu Lys Ala Ile Ile Phe Phe Asp Pro Asp Ala Lys Gly Leu Ser Asp
 290 295 300
 Pro Gly Lys Ile Lys Arg Leu Arg Ser Gln Val Gln Val Ser Leu Glu
 305 310 315 320
 Asp Tyr Ile Asn Asp Arg Gln Tyr Asp Ser Arg Gly Arg Phe Gly Glu
 325 330 335
 Leu Leu Leu Leu Leu Pro Thr Leu Gln Ser Ile Thr Trp Gln Met Ile
 340 345 350
 Glu Gln Ile Gln Phe Ile Lys Leu Phe Gly Met Ala Lys Ile Asp Asn
 355 360 365
 Leu Leu Gln Glu Met Leu Leu Gly Gly Ser Pro Ser Asp Ala Pro His
 370 375 380
 Ala His His Pro Leu His Pro His Leu Met Gln Glu His Met Gly Thr
 385 390 395 400
 Asn Val Ile Val Ala Asn Thr Met Pro Thr His Leu Ser Asn Gly Gln
 405 410 415
 Met Cys Glu Trp Pro Arg Pro Arg Gly Gln Ala Ala Thr Pro Glu Thr
 420 425 430
 Pro Gln Pro Ser Pro Pro Gly Gly Ser Gly Ser Glu Pro Tyr Lys Leu
 435 440 445
 Leu Pro Gly Ala Val Ala Thr Ile Val Lys Pro Leu Ser Ala Ile Pro
 450 455 460
 Gln Pro Thr Ile Thr Lys Gln Glu Val Ile *
 465 470 474

<210> 1961
 <211> 870
 <212> PRT
 <213> Homo sapiens

<400> 1961
 Met Glu Pro Glu Thr Ala Leu Trp Gly Pro Asp Leu Gln Gly Pro Glu
 1 5 10 15
 Gln Ser Pro Asn Asp Ala His Arg Gly Ala Glu Ser Glu Asn Glu Glu
 20 25 30
 Glu Ser Pro Arg Gln Glu Ser Ser Gly Glu Glu Ile Ile Met Gly Asp
 35 40 45
 Pro Ala Gln Ser Pro Glu Ser Lys Asp Ser Thr Glu Met Ser Leu Glu
 50 55 60
 Arg Ser Ser Gln Asp Pro Ser Val Pro Gln Asn Pro Pro Thr Pro Leu
 65 70 75 80
 Gly His Ser Asn Pro Leu Asp His Gln Ile Pro Leu Asp Pro Pro Ala
 85 90 95
 Pro Glu Val Val Pro Thr Pro Ser Asp Trp Thr Lys Ala Cys Glu Ala
 100 105 110
 Ser Trp Gln Trp Gly Ala Leu Thr Thr Trp Asn Ser Pro Pro Val Val
 115 120 125
 Pro Ala Asn Glu Pro Ser Leu Arg Glu Leu Val Gln Gly Arg Pro Ala
 130 135 140
 Gly Ala Glu Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser
 145 150 155 160
 Gln Trp Ser Lys Leu Leu Arg His Gln Arg Ile His Thr Gly Glu Arg
 165 170 175

Pro Asn Thr Cys Ser Glu Cys Gly Lys Ser Phe Thr Gln Ser Ser His
 180 185 190
 Leu Val Gln His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys
 195 200 205
 Pro Asp Cys Gly Lys Cys Phe Ser Trp Ser Ser Asn Leu Val Gln His
 210 215 220
 Gln Arg Thr His Thr Gly Glu Glu Pro Tyr Lys Cys Thr Glu Cys Glu
 225 230 235 240
 Ile Ala Phe Thr Gln Ser Thr Asn Leu Ile Lys His Gln Arg Ser His
 245 250 255
 Thr Gly Glu Lys Pro Tyr Lys Cys Gly Glu Cys Arg Arg Ala Phe Tyr
 260 265 270
 Arg Ser Ser Asp Leu Ile Gln His Gln Ala Thr His Thr Gly Glu Lys
 275 280 285
 Pro Tyr Lys Cys Pro Glu Cys Gly Lys Arg Phe Gly Gln Asn His Asn
 290 295 300
 Leu Leu Lys His Gln Lys Ile His Ala Gly Glu Lys Pro Tyr Arg Cys
 305 310 315 320
 Thr Glu Cys Gly Lys Ser Phe Ile Gln Ser Ser Glu Leu Thr Gln His
 325 330 335
 Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Leu Glu Cys Gly
 340 345 350
 Lys Ser Phe Gly His Ser Ser Thr Leu Ile Lys His Gln Arg Thr His
 355 360 365
 Leu Arg Glu Asp Pro Phe Lys Cys Pro Val Cys Gly Lys Thr Phe Thr
 370 375 380
 Leu Ser Ala Thr Leu Leu Arg His Gln Arg Thr His Thr Gly Glu Arg
 385 390 395 400
 Pro Tyr Lys Cys Pro Glu Cys Gly Lys Ser Phe Ser Val Ser Ser Asn
 405 410 415
 Leu Ile Asn His Gln Arg Ile His Arg Gly Glu Arg Pro Tyr Ile Cys
 420 425 430
 Ala Asp Cys Gly Lys Ser Phe Ile Met Ser Ser Thr Leu Ile Arg His
 435 440 445
 Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Asp Cys Gly
 450 455 460
 Lys Ser Phe Ile Arg Ser Ser His Leu Ile Gln His Arg Arg Thr His
 465 470 475 480
 Thr Gly Glu Lys Pro Tyr Lys Cys Pro Glu Cys Gly Lys Ser Phe Ser
 485 490 495
 Gln Ser Ser Asn Leu Ile Thr His Val Arg Thr His Met Asp Glu Asn
 500 505 510
 Leu Phe Val Cys Ser Asp Cys Gly Lys Ala Phe Leu Glu Ala His Glu
 515 520 525
 Leu Glu Gln His Arg Val Ile His Glu Arg Gly Lys Thr Pro Ala Arg
 530 535 540
 Arg Ala Gln Gly Asp Ser Leu Leu Gly Leu Gly Asp Pro Ser Leu Leu
 545 550 555 560
 Thr Pro Pro Pro Gly Ala Lys Pro His Lys Cys Leu Val Cys Gly Lys
 565 570 575
 Gly Phe Asn Asp Glu Gly Ile Phe Met Gln His Gln Arg Ile His Ile
 580 585 590
 Gly Glu Asn Pro Tyr Lys Asn Ala Asp Gly Leu Ile Ala His Ala Ala
 595 600 605
 Pro Lys Pro Pro Gln Leu Arg Ser Pro Arg Leu Pro Phe Arg Gly Asn
 610 615 620
 Ser Tyr Pro Gly Ala Ala Glu Gly Arg Ala Glu Ala Pro Gly Gln Pro
 625 630 635 640
 Leu Lys Pro Pro Glu Gly Gln Glu Gly Phe Ser Gln Arg Arg Gly Leu
 645 650 655
 Leu Ser Ser Lys Thr Tyr Ile Cys Ser His Cys Gly Glu Ser Phe Leu
 660 665 670
 Asp Arg Ser Val Leu Leu Gln His Gln Leu Thr His Gly Asn Glu Lys
 675 680 685

Pro Phe Leu Phe Pro Asp Tyr Arg Ile Gly Leu Gly Glu Gly Ala Gly
 690 695 700
 Pro Ser Pro Phe Leu Ser Gly Lys Pro Phe Lys Cys Pro Glu Cys Lys
 705 710 715 720
 Gln Ser Phe Gly Leu Ser Ser Glu Leu Leu His Gln Lys Val His
 725 730 735
 Ala Gly Gly Lys Ser Ser Gln Lys Ser Pro Glu Leu Gly Lys Ser Ser
 740 745 750
 Ser Val Leu Leu Glu His Leu Arg Ser Pro Leu Gly Ala Arg Pro Tyr
 755 760 765
 Arg Cys Ser Asp Cys Arg Ala Ser Phe Leu Asp Arg Val Ala Leu Thr
 770 775 780
 Arg His Gln Glu Thr His Thr Gln Glu Lys Pro Pro Asn Pro Glu Asp
 785 790 795 800
 Pro Pro Pro Glu Ala Val Thr Leu Ser Thr Asp Gln Glu Gly Glu Gly
 805 810 815
 Glu Thr Pro Thr Pro Thr Glu Ser Ser Ser His Gly Glu Gly Gln Asn
 820 825 830
 Pro Lys Thr Leu Val Glu Glu Lys Pro Tyr Leu Cys Pro Glu Cys Gly
 835 840 845
 Ala Gly Phe Thr Glu Val Ala Leu Leu Leu His Arg Ser Cys His
 850 855 860
 Pro Gly Val Ser Leu *
 865 869

<210> 1962
 <211> 870
 <212> PRT
 <213> Homo sapiens

<400> 1962
 Met Gln Glu Ile Asn Gln Asn Leu Ala Glu Glu Ala Gly Leu Asn Ile
 1 5 10 15
 Thr His Ile Cys Leu Pro Pro Asp Ser Ser Glu Ala Glu Ile Ile Asp
 20 25 30
 Glu Ile Leu Lys Ile Asn Glu Asp Thr Arg Val His Gly Leu Ala Leu
 35 40 45
 Gln Ile Ser Glu Asn Leu Phe Ser Asn Lys Val Leu Asn Ala Leu Lys
 50 55 60
 Pro Glu Lys Asp Val Asp Gly Val Thr Asp Ile Asn Leu Gly Lys Leu
 65 70 75 80
 Val Arg Gly Asp Ala His Glu Cys Phe Val Ser Pro Val Ala Lys Ala
 85 90 95
 Val Ile Glu Leu Leu Glu Lys Ser Val Gly Val Asn Leu Asp Gly Lys
 100 105 110
 Lys Ile Leu Val Val Gly Ala His Gly Ser Leu Glu Ala Ala Leu Gln
 115 120 125
 Cys Leu Phe Gln Arg Lys Gly Ser Met Thr Met Ser Ile Gln Trp Lys
 130 135 140
 Thr Arg Gln Leu Gln Ser Lys Leu His Glu Ala Asp Ile Val Val Leu
 145 150 155 160
 Gly Ser Pro Lys Pro Glu Glu Ile Pro Leu Thr Trp Ile Gln Pro Gly
 165 170 175
 Thr Thr Val Leu Asn Cys Ser His Asp Phe Leu Ser Gly Lys Val Gly
 180 185 190
 Cys Gly Ser Pro Arg Ile His Phe Gly Gly Leu Ile Glu Glu Asp Asp
 195 200 205
 Val Ile Leu Leu Ala Ala Ala Leu Arg Ile Gln Asn Met Val Ser Ser
 210 215 220
 Gly Arg Arg Trp Leu Arg Glu Gln Gln His Arg Arg Trp Arg Leu His
 225 230 235 240

Cys Leu Lys Leu Gln Pro Leu Ser Pro Val Pro Ser Asp Ile Glu Ile
 245 250 255
 Ser Arg Gly Gln Thr Pro Lys Ala Val Asp Val Leu Ala Lys Glu Ile
 260 265 270
 Gly Leu Leu Ala Asp Glu Ile Glu Ile Tyr Gly Lys Ser Lys Ala Lys
 275 280 285
 Val Arg Leu Ser Val Leu Glu Arg Leu Lys Asp Gln Ala Asp Gly Lys
 290 295 300
 Tyr Val Leu Val Ala Gly Ile Thr Pro Thr Pro Leu Gly Glu Gly Lys
 305 310 315 320
 Ser Thr Val Thr Ile Gly Leu Val Gln Ala Leu Thr Ala His Leu Asn
 325 330 335
 Val Asn Ser Phe Ala Cys Leu Arg Gln Pro Ser Gln Gly Pro Thr Phe
 340 345 350
 Gly Val Lys Gly Gly Ala Ala Gly Gly Tyr Ala Gln Val Ile Pro
 355 360 365
 Met Glu Glu Phe Asn Leu His Leu Thr Gly Asp Ile His Ala Ile Thr
 370 375 380
 Ala Ala Asn Asn Leu Leu Ala Ala Ala Ile Asp Thr Arg Ile Leu His
 385 390 395 400
 Glu Asn Thr Gln Thr Asp Lys Ala Leu Tyr Asn Arg Leu Val Pro Leu
 405 410 415
 Val Asn Gly Val Arg Glu Phe Ser Glu Ile Gln Leu Ala Arg Leu Lys
 420 425 430
 Lys Leu Gly Ile Asn Lys Thr Asp Pro Ser Thr Leu Thr Glu Glu Glu
 435 440 445
 Val Ser Lys Phe Ala Arg Leu Asp Ile Asp Pro Ser Thr Ile Thr Trp
 450 455 460
 Gln Arg Val Leu Asp Thr Asn Asp Arg Phe Leu Arg Lys Ile Thr Ile
 465 470 475 480
 Gly Gln Gly Asn Thr Glu Lys Gly His Tyr Arg Gln Ala Gln Phe Asp
 485 490 495
 Ile Ala Val Ala Ser Glu Ile Met Ala Val Leu Ala Leu Thr Asp Ser
 500 505 510
 Leu Ala Asp Met Lys Ala Arg Leu Gly Arg Met Val Val Ala Ser Asp
 515 520 525
 Lys Ser Gly Gln Pro Val Thr Ala Asp Asp Leu Gly Val Thr Gly Ala
 530 535 540
 Leu Thr Val Leu Met Lys Asp Ala Ile Lys Pro Asn Leu Met Gln Thr
 545 550 555 560
 Leu Glu Gly Thr Pro Val Phe Val His Ala Gly Pro Phe Ala Asn Ile
 565 570 575
 Ala His Gly Asn Ser Ser Val Leu Ala Asp Lys Ile Ala Leu Lys Leu
 580 585 590
 Val Gly Glu Glu Gly Phe Val Val Thr Glu Ala Gly Phe Gly Ala Asp
 595 600 605
 Ile Gly Met Glu Lys Phe Phe Asn Ile Lys Cys Arg Ala Ser Gly Leu
 610 615 620
 Val Pro Asn Val Val Val Leu Val Ala Thr Val Arg Ala Leu Lys Met
 625 630 635 640
 His Gly Gly Gly Pro Ser Val Thr Ala Gly Val Pro Leu Lys Lys Glu
 645 650 655
 Tyr Thr Glu Glu Asn Ile Gln Leu Val Ala Asp Gly Cys Cys Asn Leu
 660 665 670
 Gln Lys Gln Ile Gln Ile Thr Gln Leu Phe Gly Val Pro Val Val Val
 675 680 685
 Ala Leu Asn Val Phe Lys Thr Asp Thr Arg Ala Glu Ile Asp Leu Val
 690 695 700
 Cys Glu Leu Ala Lys Arg Ala Gly Ala Phe Asp Ala Val Pro Cys Tyr
 705 710 715 720
 His Trp Ser Val Gly Gly Lys Gly Ser Val Asp Leu Ala Arg Ala Val
 725 730 735
 Arg Glu Ala Ala Ser Lys Arg Ser Arg Phe Gln Phe Leu Tyr Asp Val
 740 745 750

Gln Val Pro Ile Val Asp Lys Ile Arg Thr Ile Ala Gln Ala Val Tyr
 755 760 765
 Gly Ala Lys Asp Ile Glu Leu Ser Pro Glu Ala Gln Ala Lys Ile Asp
 770 775 780
 Arg Tyr Thr Gln Gln Gly Phe Gly Asn Leu Pro Ile Cys Met Ala Lys
 785 790 795 800
 Thr His Leu Ser Leu Ser His Gln Pro Asp Lys Lys Gly Val Pro Arg
 805 810 815
 Asp Phe Ile Leu Pro Ile Ser Asp Val Arg Ala Ser Ile Gly Ala Gly
 820 825 830
 Phe Ile Tyr Pro Leu Val Gly Thr Met Ser Thr Met Pro Gly Leu Pro
 835 840 845
 Thr Arg Pro Cys Phe Tyr Asp Ile Asp Leu Asp Thr Glu Thr Glu Gln
 850 855 860
 Val Lys Gly Leu Phe *
 865 869

<210> 1963
 <211> 49
 <212> PRT
 <213> Homo sapiens

<400> 1963
 Met Ser Arg Lys Pro Arg Ala Ser Ser Pro Leu Ser Asn Asn His Pro
 1 5 10 15
 Pro Thr Pro Lys Arg Arg Gly Ser Gly Arg Phe Pro Arg Gln Pro Gly
 20 25 30
 Arg Glu Lys Gly Pro Ile Lys Glu Val Pro Gly Thr Lys Gly Ser Pro
 35 40 45 48
 *

<210> 1964
 <211> 61
 <212> PRT
 <213> Homo sapiens

<400> 1964
 Met Ser Arg Lys Pro Arg Ala Ser Ser Pro Leu Ser Asn Asn His Pro
 1 5 10 15
 Pro Thr Pro Lys Arg Arg Gly Ser Gly Arg His Pro Leu Ile Pro Gly
 20 25 30
 Pro Glu Ala Leu Ser Lys Phe Pro Arg Gln Pro Gly Arg Glu Lys Gly
 35 40 45
 Pro Ile Lys Glu Val Pro Gly Thr Lys Gly Ser Pro *
 50 55 60

<210> 1965
 <211> 503
 <212> PRT
 <213> Homo sapiens

<400> 1965
 Met Cys Arg Ile Leu Asn Asp Glu Ala Ala Trp Asn Glu Leu Ala Arg
 1 5 10 15

Ala Cys Leu His His Met Glu Val Glu Phe Ala Ile Arg Val Tyr Arg
 20 25 30
 Arg Ile Gly Asn Val Gly Ile Val Met Ser Leu Glu Gln Ile Lys Gly
 35 40 45
 Ile Glu Asp Tyr Asn Leu Leu Ala Gly His Leu Ala Met Phe Thr Asn
 50 55 60
 Asp Tyr Asn Leu Ala Gln Asp Leu Tyr Leu Ala Ser Ser Cys Pro Ile
 65 70 75 80
 Ala Ala Leu Glu Met Arg Arg Asp Leu Gln His Trp Asp Ser Ala Leu
 85 90 95
 Gln Leu Ala Lys His Leu Ala Pro Asp Gln Ile Pro Phe Ile Ser Lys
 100 105 110
 Glu Tyr Ala Ile Gln Leu Glu Phe Ala Gly Asp Tyr Val Asn Ala Leu
 115 120 125
 Ala His Tyr Glu Lys Gly Ile Thr Gly Asp Asn Lys Glu His Asp Glu
 130 135 140
 Ala Cys Leu Ala Gly Val Ala Gln Met Ser Ile Arg Met Gly Asp Ile
 145 150 155 160
 Arg Arg Gly Val Asn Gln Ala Leu Lys His Pro Ser Arg Val Leu Lys
 165 170 175
 Arg Asp Cys Gly Ala Ile Leu Glu Asn Met Lys Gln Phe Ser Glu Ala
 180 185 190
 Ala Gln Leu Tyr Glu Lys Gly Leu Tyr Tyr Asp Lys Ala Ala Ser Val
 195 200 205
 Tyr Ile Arg Ser Lys Asn Trp Ala Lys Val Gly Asp Leu Leu Pro His
 210 215 220
 Val Ser Ser Pro Lys Ile His Leu Gln Tyr Ala Lys Ala Lys Glu Ala
 225 230 235 240
 Asp Gly Arg Tyr Lys Glu Ala Val Val Ala Tyr Glu Asn Ala Lys Gln
 245 250 255
 Trp Gln Ser Val Ile Arg Ile Tyr Leu Asp His Leu Asn Asn Pro Glu
 260 265 270
 Lys Ala Val Asn Ile Val Arg Glu Thr Gln Ser Leu Asp Gly Ala Lys
 275 280 285
 Met Val Ala Arg Phe Phe Leu Gln Leu Gly Asp Tyr Gly Ser Ala Ile
 290 295 300
 Gln Phe Leu Val Met Ser Lys Cys Asn Asn Glu Ala Phe Thr Leu Ala
 305 310 315 320
 Gln Gln His Asn Lys Met Glu Ile Tyr Ala Asp Ile Ile Gly Ser Glu
 325 330 335
 Asp Thr Thr Asn Glu Asp Tyr Gln Ser Ile Ala Leu Tyr Phe Glu Gly
 340 345 350
 Glu Lys Arg Tyr Leu Gln Ala Gly Lys Phe Phe Leu Leu Cys Gly Gln
 355 360 365
 Tyr Ser Arg Ala Leu Lys His Phe Leu Lys Cys Pro Ser Ser Glu Asp
 370 375 380
 Asn Val Ala Ile Glu Met Ala Ile Glu Thr Val Gly Gln Ala Lys Asp
 385 390 395 400
 Glu Leu Leu Thr Asn Gln Leu Ile Asp His Leu Leu Gly Glu Asn Asp
 405 410 415
 Ser Met Pro Lys Asp Ala Lys Tyr Leu Phe Arg Leu Tyr Met Ala Leu
 420 425 430
 Lys Gln Tyr Arg Glu Ala Ala Gln Thr Ala Ile Ile Ile Ala Arg Glu
 435 440 445
 Glu Gln Ser Ala Gly Asn Tyr Arg Asn Ala His Asp Val Leu Phe Ser
 450 455 460
 Met Tyr Ala Glu Leu Lys Ser Gln Lys Ile Lys Ile Pro Ser Glu Met
 465 470 475 480
 Ala Thr Asn Leu Met Ile Leu His Ser Tyr Ile Leu Val Arg Phe Met
 485 490 495
 Leu Lys Met Glu Ile Thr *
 500 502

<210> 1966
 <211> 324
 <212> PRT
 <213> Homo sapiens

<400> 1966
 Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser Thr
 1 5 10 15
 Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe Pro Leu
 20 25 30
 Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln Val Tyr Gln
 35 40 45
 Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser Tyr Gly Gln Thr
 50 55 60
 Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly Ala Gln Phe Trp Ser
 65 70 75 80
 Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg Asp Ala Leu Arg Leu Thr
 85 90 95
 Leu Glu Gln Ile Asp Leu Ile Arg Arg Met Cys Ala Ser Tyr Ser Glu
 100 105 110
 Leu Glu Leu Val Thr Ser Ala Lys Ala Leu Asn Asp Thr Gln Lys Leu
 115 120 125
 Ala Cys Leu Ile Gly Val Glu Gly Gly His Ser Leu Asp Asn Ser Leu
 130 135 140
 Ser Ile Leu Arg Thr Phe Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu
 145 150 155 160
 Thr His Thr Cys Asn Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val
 165 170 175
 His Ser Phe Tyr Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys
 180 185 190
 Val Val Ala Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His
 195 200 205
 Val Ser Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro
 210 215 220
 Val Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
 225 230 235 240
 Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly Val
 245 250 255
 Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro Ser Ala
 260 265 270
 Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys Ala Val Ile
 275 280 285
 Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp Gly Ala Gly Lys
 290 295 300
 Tyr Arg Lys Lys Thr Lys Cys Lys Ala Pro Trp Arg Thr Ser Ser Arg
 305 310 315 320
 Met Ser Ser *
 323

<210> 1967
 <211> 520
 <212> PRT
 <213> Homo sapiens

<400> 1967
 Met Ala Glu Asp Glu Pro Ser Gly Ala Leu Leu Lys Pro Leu Val Phe
 1 5 10 15
 Arg Val Asp Glu Thr Thr Pro Ala Val Val Gln Ser Val Leu Leu Glu
 20 25 30

Arg	Gly	Trp	Asn	Lys	Phe	Asp	Lys	Gln	Glu	Gln	Asn	Ala	Glu	Asp	Trp
		35					40					45			
Asn	Leu	Tyr	Trp	Arg	Thr	Ser	Ser	Phe	Arg	Met	Thr	Glu	His	Asn	Ser
		50					55					60			
Val	Lys	Pro	Trp	Gln	Gln	Leu	Asn	His	His	Pro	Gly	Thr	Thr	Lys	Leu
		65					70				75				80
Thr	Arg	Lys	Asp	Cys	Leu	Ala	Lys	His	Leu	Lys	His	Met	Arg	Arg	Met
				85						90				95	
Tyr	Gly	Thr	Ser	Leu	Tyr	Gln	Phe	Ile	Pro	Leu	Thr	Phe	Val	Met	Pro
			100					105					110		
Asn	Asp	Tyr	Thr	Lys	Phe	Val	Ala	Glu	Tyr	Phe	Gln	Glu	Arg	Gln	Met
		115					120					125			
Leu	Gly	Thr	Lys	His	Ser	Tyr	Trp	Ile	Cys	Lys	Pro	Ala	Glu	Leu	Ser
		130					135					140			
Arg	Gly	Arg	Gly	Ile	Leu	Ile	Phe	Ser	Asp	Phe	Lys	Asp	Phe	Ile	Phe
				150						155					160
Asp	Asp	Met	Tyr	Ile	Val	Gln	Lys	Tyr	Ile	Ser	Asn	Pro	Leu	Leu	Ile
				165					170					175	
Gly	Arg	Tyr	Lys	Cys	Asp	Leu	Arg	Ile	Tyr	Val	Cys	Val	Thr	Gly	Phe
			180					185					190		
Lys	Pro	Leu	Thr	Ile	Tyr	Val	Tyr	Gln	Glu	Gly	Leu	Val	Arg	Phe	Ala
		195					200					205			
Thr	Glu	Lys	Phe	Asp	Leu	Ser	Asn	Leu	Gln	Asn	Asn	Tyr	Ala	His	Leu
		210				215					220				
Thr	Asn	Ser	Ser	Ile	Asn	Lys	Ser	Gly	Ala	Ser	Tyr	Glu	Lys	Ile	Lys
		225			230					235					240
Glu	Val	Ile	Gly	His	Gly	Cys	Lys	Trp	Thr	Leu	Ser	Arg	Phe	Phe	Ser
				245					250					255	
Tyr	Leu	Arg	Ser	Trp	Asp	Val	Asp	Asp	Leu	Leu	Leu	Trp	Lys	Lys	Ile
			260				265						270		
His	Arg	Met	Val	Ile	Leu	Thr	Ile	Leu	Ala	Ile	Ala	Pro	Ser	Val	Pro
		275					280					285			
Phe	Ala	Ala	Asn	Cys	Phe	Glu	Leu	Phe	Gly	Phe	Asp	Ile	Leu	Ile	Asp
		290				295					300				
Asp	Asn	Leu	Lys	Pro	Trp	Leu	Leu	Glu	Val	Asn	Tyr	Ser	Pro	Ala	Leu
		305			310					315					320
Thr	Leu	Asp	Cys	Ser	Thr	Asp	Val	Leu	Val	Lys	Arg	Lys	Leu	Val	His
			325					330						335	
Asp	Ile	Ile	Asp	Leu	Ile	Tyr	Leu	Asn	Gly	Leu	Arg	Asn	Glu	Gly	Arg
			340				345						350		
Glu	Ala	Ser	Asn	Ala	Thr	His	Gly	Asn	Ser	Asn	Ile	Asp	Ala	Ala	Lys
		355					360					365			
Ser	Asp	Arg	Gly	Gly	Leu	Asp	Ala	Pro	Asp	Cys	Leu	Pro	Tyr	Asp	Ser
		370				375					380				
Leu	Ser	Phe	Thr	Ser	Arg	Met	Tyr	Asn	Glu	Asp	Asp	Ser	Val	Val	Glu
		385			390					395					400
Lys	Ala	Val	Ser	Val	Arg	Pro	Glu	Ala	Ala	Pro	Ala	Ser	Gln	Leu	Glu
			405					410					415		
Gly	Glu	Met	Ser	Gly	Gln	Asp	Phe	His	Leu	Ser	Thr	Arg	Glu	Met	Pro
			420					425					430		
Gln	Ser	Lys	Pro	Lys	Leu	Arg	Ser	Arg	His	Thr	Pro	His	Lys	Thr	Leu
		435				440						445			
Met	Pro	Tyr	Ala	Ser	Leu	Phe	Gln	Ser	His	Ser	Cys	Lys	Thr	Lys	Thr
		450				455					460				
Ser	Pro	Cys	Val	Leu	Ser	Asp	Arg	Gly	Lys	Ala	Pro	Asp	Pro	Gln	Ala
		465			470					475					480
Gly	Asn	Phe	Val	Leu	Val	Phe	Pro	Phe	Asn	Glu	Ala	Thr	Leu	Gly	Ala
			485					490						495	
Ser	Arg	Asn	Gly	Leu	Asn	Val	Lys	Arg	Ile	Ile	Gln	Glu	Leu	Gln	Lys
		500					505						510		
Leu	Met	Asn	Lys	Gln	His	Ser	*								
		515				519									

<210> 1968
 <211> 241
 <212> PRT
 <213> Homo sapiens

<400> 1968
 Met Thr Lys Lys Thr Tyr Val Glu Ser Ile Leu Glu Gly Ile Lys Gln
 1 5 10 15
 Ser Lys Gln Glu Asn Leu Asp Ile Asp Val Arg Tyr Leu Ile Ala Val
 20 25 30
 Asp Arg Arg Gly Gly Pro Leu Val Ala Lys Glu Thr Val Lys Leu Ala
 35 40 45
 Glu Glu Phe Phe Leu Ser Thr Glu Gly Thr Val Leu Gly Leu Asp Leu
 50 55 60
 Ser Gly Asp Pro Thr Val Gly Gln Ala Lys Asp Phe Leu Glu Pro Leu
 65 70 75 80
 Leu Glu Ala Lys Lys Ala Gly Leu Lys Leu Ala Leu His Leu Ser Glu
 85 90 95
 Ile Pro Asn Gln Lys Lys Glu Thr Gln Ile Leu Leu Asp Leu Leu Pro
 100 105 110
 Asp Arg Ile Gly His Gly Thr Phe Leu Asn Ser Gly Glu Gly Gly Ser
 115 120 125
 Leu Asp Leu Val Asp Phe Val Arg Gln His Arg Ile Pro Leu Glu Leu
 130 135 140
 Cys Leu Thr Ser Asn Val Lys Ser Gln Thr Val Pro Ser Tyr Asp Gln
 145 150 155 160
 His His Phe Gly Phe Trp Tyr Ser Ile Ala His Pro Ser Val Ile Cys
 165 170 175
 Thr Asp Asp Lys Gly Val Phe Ala Thr His Leu Ser Gln Glu Tyr Gln
 180 185 190
 Leu Ala Ala Glu Thr Phe Asn Leu Thr Gln Ser Gln Val Trp Asp Leu
 195 200 205
 Ser Tyr Glu Ser Ile Asn Tyr Ile Phe Ala Ser Asp Ser Thr Arg Ser
 210 215 220
 Glu Leu Arg Lys Lys Trp Asn His Leu Lys Pro Arg Val Leu His Ile
 225 230 235 240
 *

<210> 1969
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 1969
 ggatatacaga gcacaggatc gaggcctcgg gaaattacct ggcacagcga ctgacatcat 60
 ccttcctgag gggactgagc tcttggaat caaacctct catgttgtgt ggatggacga 120
 ttctcctcac acttacgatg gtacaagggg aaccatgagg cccccaagg gatccctggg 180
 tgtccacacg aactcctcct accctcattg ggggacgggc gccaaagcctc ctgctgggga 240
 ttaggatcta ttacctgcgc ctggacagga ggggactcct cttttcacc gctagtctct 300
 gtgcacatac tgcctattg accg 324

<210> 1970
 <211> 685
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(685)
 <223> n = a,t,c or g

<400> 1970
 acgccaaagct tggcacgagg gaagaacttg gcaaggatct ctttgattgt actttgtatg 60
 ttctattgaa atatgatgat tttaatgctg acaagcacct ggctcttgaa gaattttata 120
 gagcattcca agtgatccag ttgagtctgc cagaagatca gaaactaagc atcactgcag 180
 caactgtggg acaaagtgcg gttctgagct gtgccattca aggaacctg agacctccca 240
 ttatctggaa aaggaacaat attattctaa ataatttaga ttggaagac atcaatgact 300
 ttggagatga tgggtccttg taattacta aggttaccac aactcacgtt ggcaattaca 360
 cctgctatgc agatggctat gaacaagtct atcagactca catcttccaa gtgaatgttc 420
 ctccagtcac ccgggtgtat ccagagagtc aggcctaggag agccgggggt aactgccagt 480
 cttaggggtgc catgcaggag gggcatacca aagccttcag cttgggctgg gtttgaagga 540
 tgggaattgg atatttacac ccaaagcttt tcccaaacaa cttcacgggt ttcaaggcaa 600
 tggggcagtt gaggggttca cattaaggca ttgttncgct atggagggtta cngggggcctt 660
 acanttgttt tcgcaaggat tgagt 685

<210> 1971
 <211> 482
 <212> DNA
 <213> Homo sapiens

<400> 1971
 gtttctattc cgccttcctt gtagcagata agggatttgt cacttcaaaa cacaacaacg 60
 ataccagca catctgggag tctgactcca atgaattttc tgtaattgct gacccaagag 120
 gaaacactct aggacgggga acgacaatta cgtgagtatg accaattcct tataagaatt 180
 aatagtcacg gtgaggatct tgactctcca gttctattct ctgagcaaat gacttattct 240
 gggccttaat tttcctgcct tataaaatga ggaaacagaa ctgttgtcac ttgaagaaat 300
 gtttgaggac ctgcaaaggg ccaggcacaa aggtttgtga ttgctgtgt acatggaggg 360
 tataaagtag gaaatagcag cagcttcccc aagggagaaag gcttcttggg taccacaga 420
 ggaggcactg ctttgtcagt ttcccagggt agaagagtaa tttgtctgtg gagcatcctg 480
 at 482

<210> 1972
 <211> 493
 <212> DNA
 <213> Homo sapiens

<400> 1972
 agaaccacaaa cagatgtgta catcctgaat ttggctgtag cagatttact ccttctattc 60
 actctgcctt tttgggctgt taatgcagtt catgggtggg ttttagggaa aataatgtgc 120
 aaaataactt cagccttgta cacactaaac tttgtctctg gaatgcagtt tctggcttgt 180
 atcagcatag acagatatgt ggcagtaact aaagtcccca gccaatcagg agtgggaaaa 240
 ccattgctgga tcatctgttt ctgtgtctgg atggctgcca tcttgctgag cataccacag 300
 ctggtttttt atacagtaaa tgacaatgct aggtgcattc ccattttccc ccgtacctta 360
 ggaacatcaa tgaaagcatt gattcaaagc ctagagatct gcattggatt ttagtagccc 420
 tttcttatta tgggggtgtg ctactttatc acagcaagga cactcatgaa gatgccaaac 480
 attaaaatat ctc 493

<210> 1973
 <211> 1284
 <212> DNA
 <213> Homo sapiens

<400> 1973

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<210> 1974

<211> 1345

<212> DNA

<213> Homo sapiens

<400> 1974

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<210> 1975

<211> 426

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(426)

<223> n = a,t,c or g

<400> 1975

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<210> 1976

<211> 1353

<212> DNA

<213> Homo sapiens

<400> 1976

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<210> 1977

<211> 3418

<212> DNA

<213> Homo sapiens

<400> 1977

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gcacccacgc	cccactccgg	gcctccgtgt	ctctcctgtg	atcgactga	cacggccggg	240

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<210> 1978

<211> 2406

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

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<223> n = a,t,c or g

<400> 1978

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<210> 1979

<211> 1781

<212> DNA

<213> Homo sapiens

<400> 1979

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<212> DNA

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<223> n = a,t,c or g

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<211> 2454

<212> DNA

<213> Homo sapiens

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<223> n = a,t,c or g

<400> 1981

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<210> 1982

<211> 2194

<212> DNA

<213> Homo sapiens

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<400> 1982

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<211> 3507

<212> DNA

<213> Homo sapiens

<400> 1983						
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<400> 1984

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<213> Homo sapiens

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 <213> Homo sapiens

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<211> 2062

<212> DNA

<213> Homo sapiens

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<211> 998

<212> DNA

<213> Homo sapiens

<400> 2011

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<210> 2012

<211> 1716

<212> DNA

<213> Homo sapiens

<400> 2012

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<211> 2057
<212> DNA
<213> Homo sapiens

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<210> 2014
<211> 3111
<212> DNA
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<212> DNA

<213> Homo sapiens

<400> 2032

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<211> 1534

<212> DNA

<213> Homo sapiens

<400> 2033

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<210> 2034

<211> 3378

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (3378)

<223> n = a,t,c or g

<400> 2034

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 <212> DNA
 <213> Homo sapiens

<400> 2035						
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 <212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

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<223> n = a,t,c or g

<400> 2036

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<211> 2075

<212> DNA

<213> Homo sapiens

<400> 2037

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<211> 2714

<212> DNA

<213> Homo sapiens

<400> 2038

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<212> DNA

<213> Homo sapiens

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<211> 2655

<212> DNA

<213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

<400> 2041
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 <211> 981

<212> DNA

<213> Homo sapiens

<400> 2043

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<211> 1236

<212> DNA

<213> Homo sapiens

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<210> 2045

<211> 2188

<212> DNA

<213> Homo sapiens

<400> 2045

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<211> 836

<212> DNA

<213> Homo sapiens

<400> 2046

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<211> 1176
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 <212> DNA
 <213> Homo sapiens

<400> 2048

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 <212> DNA
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<400> 2049

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<211> 1870

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 1350

<212> DNA

<213> Homo sapiens

<400> 2053

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<211> 1066

<212> DNA

<213> Homo sapiens

<400> 2054

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<213> Homo sapiens

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<212> DNA

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<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 2064

<211> 1168

<212> DNA

<213> Homo sapiens

<400> 2064

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<210> 2065

<211> 3163

<212> DNA

<213> Homo sapiens

<400> 2065

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<210> 2066

<211> 1286

<212> DNA

<213> Homo sapiens

<400> 2066

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<210> 2067

<211> 5716

<212> DNA

<213> Homo sapiens

<400> 2067

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<211> 1954

<212> DNA

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<400> 2072

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